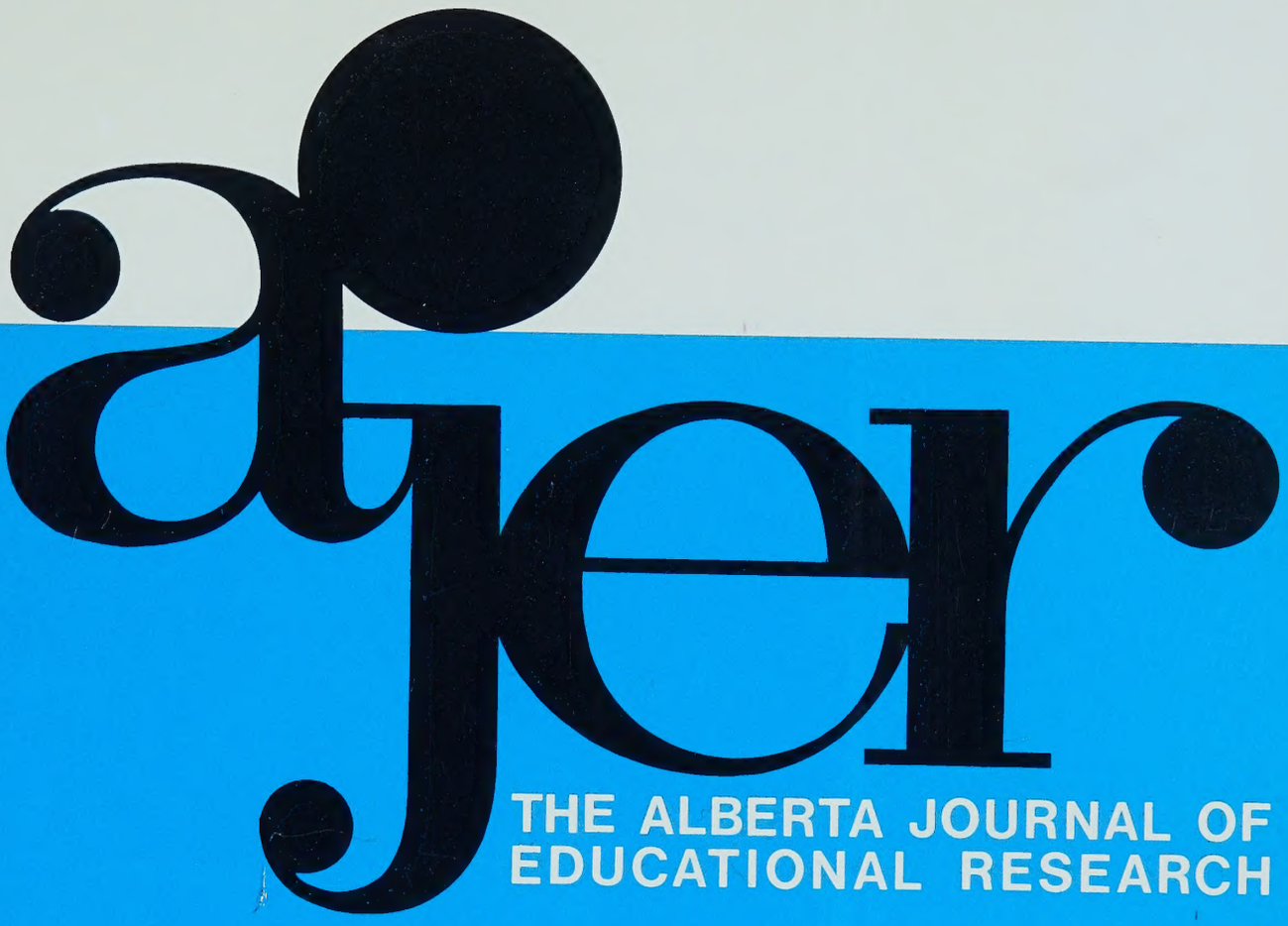

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AJER: The First Twenty-five Years

The Alberta Journal of Educational Research has served the interests of educational research in Canada and abroad since its inception in 1955. In its commitment to the dissemination, criticism, interpretation, and encouragement of all forms of systematic enquiry into education, the *Journal* has acted as a vital force in the publication of research results of new as well as established scholars in psychology, administration, curriculum, sociology, history, and philosophy.

The current issue of the *Journal* commemorates this long-standing commitment in presenting Professor Naomi Hersom's perspective on educational research and Professor Andrew Clark's comprehensive bibliography of articles published in the AJER during its first twenty-five years.

I wish to extend sincere appreciation to contributors, reviewers, subscribers, and those associated with the AJER who over the years have supported its development.

Henry W. Hodysh

ROBERT R. O'REILLY
University of Ottawa
and
JOHN W. JARRETT
Carleton Board of Education

Student Involvement and the Intermediate School

Among the stated purposes of the middle school is the provision of opportunities for the development of student independence and individuality. Behaviour setting theory provides a framework for analyzing student behaviour in various school settings. The involvement in school activities of grade 8 pupils from ten K-8 schools was compared to those from ten intermediate schools. A student involvement survey instrument was carefully developed. The fourth edition yielded a test retest correlation of .94. As an index of validity, the correlation between teacher and student ratings of student activity was .70. Almost 600 students participated in the study. The results support the hypotheses emanating from the theory. Grade 8 pupils in K-8 schools tend to be more involved in school activities than do their peers in intermediate schools. In this major outcome at least, K-8 schools tend to serve the needs of young adolescents better than do intermediate schools.

The provision of special schools for students in the intermediate grades is not a new idea. The junior high school movement can be traced back to the early part of the century. The most recent trend in intermediate education is the growth in the number of middle schools. In spite of the wide popularity of these schools, there has not been much research on the efficacy of this type of organization. Even such an eminent authority as Alexander admits that research findings are inconclusive. He says, "I wish I could tell you that research has

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Dr. Jarrett (Ph.D., educational administration) has been a principal of elementary (kindergarten to grade 8) schools and intermediate schools. He is now Superintendent of Special Education with the Carleton Board of Education.

firmly established the idea that the middle school is a better organization than any other organization. I can not do it " (1969, p. 3).

Wattenburg (1967) claims that there is no evidence to indicate that pupils who go through a system with a separate intermediate school level differ in any way from those who go through a two-level system. Chellew, Baker, Baker, Dimitri & Johnson (1973), after making a comprehensive review of studies on intermediate schools, conclude that the research fails to demonstrate that intermediate schools are superior to K-8 schools in terms of either achievement or student self-perception. Soares, Soares & Pumerantz (1973) suggest that intermediate schools may be less desirable:

> traditional schools are more likely to be neighbourhood schools, while middle schools draw from many sections of the city. Continuity and security emanating from the known and the familiar are generally more conducive to higher self-perceptions. (p. 387)

Similarly, Mead (1965) claims that segregating pre-adolescents by placing them in intermediate schools divorces them from the reassurances and the security that are inherent in a continuing association with children like their own recent past selves.

Educators are generally agreed on the rationale for intermediate education. They state that unless the characteristics and needs of the students underpin the intermediate school program, there is probably little justification for establishing such schools. Popper (1967) states that "if the human condition of early adolescence ceases to be the dominant focus of middle school education, then the old pattern of an 8-4 school organization would have a more valid administrative rationale" (p. 6).

The early adolescent's striving for independence and emancipation are among the important special needs of this age group which should be provided for in the intermediate grades (Desjarlais & Rackauskas, 1975). Certain aspects of the intermediate program, therefore, should foster the development of a sense of autonomy and individuality in the students (Schmuck, 1965).

The aspect of the intermediate education program that appears to lend itself best to the development of independence and individuality is the activities program (Reubel, 1973). This part of the program, in the opinion of a number of writers, has the greatest potential for fostering leadership and social skills in the students (Havighurst, 1968) and for developing a sense of community in preparation for life in a democratic society (Overly, Kinghorn & Preston, 1972).

Purpose of the Study

The question is: Are intermediate schools best able to provide for the special needs of early adolescents? Certain writers appear to have doubts about this. The level of participation in school activities in intermediate schools is questioned and, consequently, the efficacy of these schools is also questioned (Overly et al., 1972). Chellew et al. (1973) speculate that participation of intermediate grade students may be greater in K-8 schools than in intermediate schools.

The general purpose of this study is to compare the level of participation of grade eight students in two types of school environment—intermediate schools

and K-8 schools—in order to investigate the effectiveness of the intermediate school environment in generating student behaviours that are in keeping with the aims of intermediate education.

Theoretical Rationale

Behaviour Setting Theory

The basic postulate of the study is that environment and behaviour are directly linked. Behaviour setting theory, upon which this study was developed, states that behaviour is largely controlled by the environmental setting in which it occurs (Willems, 1974). The theory has been elaborated by Barker (1968) and his colleagues. According to the theory that has emerged from these studies a setting is a homeostatic system with controls that maintain the setting intact, operating at a stable functional level under widely varying conditions (Barker & Gump, 1964). This homeostatic system consists of multiple, independent elements. For every homeostatic level there is an optimal number of elements. When the optimal number of elements is present, the behaviour setting is said to be optimally manned. When the number of elements falls below the optimal level, that is, when the setting is undermanned, important consequences follow. In the undermanned situation, because the homeostatic controls maintain the functional level of the setting, the same pattern and strength of forces must be distributed among fewer inhabitants. The impact of undermanned settings on the individuals who occupy them results in: (1) greater effort in the form of harder work or longer hours; (2) more difficult and important tasks undertaken; (3) a wider variety of activities engaged in; (4) less sensitivity and less evaluation of differences between people; (5) lower level of maximal or "top" performance; (6) greater functional importance within the setting; (7) more responsibility; (8) greater functional self-identify; (9) lower standards and fewer tests for admission; (10) greater insecurity due to increased dependence upon others; and (11) more frequent occurrences of success and failure (Wicker, 1967, p. 6).

A behaviour setting can also shape a sense of responsibility or obligation in its inhabitants. Willems (1967) states that:

> induced forces, or environmental feedback (a) *define* the person's social obligations for him and *direct* him to it and (b) inform him of possible consequences of his actions in the form of sanctions and rewards. As a result of this definition and direction and potential return, an internalized, subjective disposition, that is, sense of obligation is shaped. (p. 1249)

Behaviour Setting Research

Behaviour setting research that has been conducted in schools has centred largely on the question of size. Barker and Barker (1964) claim that these studies have revealed what they call the school size illusion.

> We have discovered that small high schools are, in fact, not so small on the inside as they are on the outside. In terms of number of behavior settings, number of inhabitants per setting—interior characteristics not easily seen from the outside—small schools differ less from large schools than in terms of number of students and amount of space, which are perceptually salient external attributes of schools. (pp. 62-63)

In an investigation that involved a comprehensive behaviour setting survey of high schools ranging in size from 35 pupils to 2,287 pupils, Barker and Barker (1964) discovered that as the schools increase in size, the variety and richness of behaviour settings in the schools increases at a much slower rate. They concluded that smaller schools manage to sustain a large proportion of the types of behaviour settings provided by larger schools.

Gump and Friesen (1964a) studied student participation in nonclass settings or extracurricular activities. They chose to investigate the nonclass setting because the most adequate field methods available to them made use of the free decisions of students to enter or not to enter particular behaviour settings. They felt that it was essential to avoid settings where student participation is determined by school officials. They state their findings as follows:

> This study demonstrated that a large school provides a somewhat larger number and wider variety of nonclass activities than a small school . . . but the small school provides a higher proportion of settings to the number of students; this has the following consequences for the student's participation in activities: (a) Small school students participate in the same *number* of settings commonly regarded as extra-curricular as do large school students. (b) Small school students participate in a wider *variety* of extra-curricular activities than do students in a large school. (c) A much larger portion of small school students hold positions of responsibility and importance. (d) Finally, small school students hold responsible and central positions in a wider variety of activities than do students in a large school. (pp. 92-93)

Another study relating to students' feelings and experiences in school behaviour settings was conducted by Gump and Friesen (1964b). Students were asked to select from a list of activities that they had entered those which they felt were satisfying and worthwhile. These students were also asked to tell what they liked about these settings. A content analysis was applied to these responses and revealed that the students in the small schools derived a greater range of satisfaction from their participation in nonclass activities than did students in large schools. The general conclusion that Gump and Friesen came to as a result of this research with junior high school students was that:

> large and small school Juniors derived different satisfactions from their nonclass settings and that these differences were causally related to differences in the number of students who occupied more central, important positions and the number of such positions held by each student. (p. 114)

The evidence demonstrated that students in small schools occupied a greater proportion of central and responsible roles.

Hypotheses

The basic assumption in this study is that school activity settings in K-8 schools are relatively undermanned in comparison to those in intermediate schools. In general, K-8 schools have fewer grade eight students than intermediate schools have.

The general hypotheses of this study are as follows:

1. Grade eight students in K-8 schools are more involved in school activities than grade eight students in intermediate schools.
2. The responsibility for the maintenance of school activities assumed by grade eight students in K-8 schools is greater than that assumed by grade eight students in intermediate schools.

Methodology

Student Involvement Survey Instrument

The instrument used to gather the data reported in this paper was the Student Involvement Survey (SIS). This instrument was based on the research done by Gump and Friesen (1964a).

On the SIS, students are asked to report on their involvement in school activities under a number of categories. These categories are based on the varieties of nonclass behaviour settings identified by Gump and Friesen (1964). When completing the SIS, the students are instructed to think back over the past school year and recall their activities under each of the following twelve categories:

1. Games with Other Schools
2. House League, Intramural Sports
3. Plays, Concerts, Public Performances
4. Music
5. Parties, Dances
6. Money Raising, Charitable Projects
7. Hobby Clubs, Special Interest Groups
8. Service Clubs, Helper Groups
9. Students' Council, School Elections
10. School Newspaper, Year Book
11. School Offices
12. Library, Resource Centre

Each student lists the activities within the categories in which he or she was involved and indicates the nature of the involvement by placing a check mark under the appropriate Performance Information heading. The Performance headings on the SIS were derived from the different levels of penetration or zones of centrality defined by Barker (1968, p. 51). Three column headings giving three general levels of penetration were included on the instrument. Check marks in the first column indicate a relatively minor involvement at the audience or customer level. Check marks in the second column indicate a more active membership such as a worker or a helper while check marks in the third column indicate a participant who is more directly responsible for the maintenance or control of the activity, such as an organizer, leader, executive officer, or player.

In addition to recording performance information, each student indicates the approximate number of times he or she was involved by checking the appropriate column in the Number of Times section of the instrument. This section of the instrument has three columns with the following headings: Once only, Two to five times, and Six or more times.

In order to develop and refine the Student Involvement Survey form, a series of pilot studies was conducted. Prior to the first pilot study, a preliminary SIS form was discussed at a seminar group consisting of teachers and graduate students from the Faculty of Education at the University of Ottawa. As a result of the comments and suggestions from members of this group, the categories of activities on the instrument were defined more precisely and the format was modified.

In Pilot Study Number One, the first draft of the SIS was used with 30 grade eight students—19 boys and 11 girls—in an intermediate school. The responses of these students were studied and a second draft of the instrument was drawn up. This second draft was checked for content validity at a second seminar of teachers and graduate students. As a result of this seminar presentation and subsequent discussions, the format of the SIS was changed further and additional performance information was included. The third draft of the SIS that came out of this process was administered to the 30 students who had completed the first draft. The interval between the administration of these two versions of the SIS was three weeks. On the first draft, the students indicated a total of 408 entries into nonclass behaviour settings in their school; on the third draft, the same students reported a total of 486 entries.

The similarities between the responses of the students and between the total number of entries reported on the SIS indicated that measuring student involvement by asking individuals to recall their personal involvement was reasonably reliable.

The third draft of the SIS was also used in Pilot Study Number Two. In this study, 34 grade eight students in another intermediate school were used. These students completed the third draft of the instrument on two different occasions eight days apart. The correlation between the total scores obtained on these two dates was .91.

In order to get a further indication of the validity of the SIS, two separate rankings of the students were derived from the scores obtained by the students on the two occasions on which they completed the instrument. These rankings were compared with a ranking of student involvement made by the homeroom teacher of these students. The homeroom teacher's ranking was compiled by using a card-sort method. The correlation of the first set of rankings with the teacher's was .47 and the correlation of the second set was .53.

A fourth draft of the SIS was then prepared for use in Pilot Study Number Three. The changes incorporated in the fourth draft were minor. This version of the SIS was administered twice to 23 grade eight students—14 boys and 9 girls—in a large K-8 school. The two dates of administration were nine days apart. The correlation between the total scores obtained by the students on the two dates was .94.

The rankings derived from the two sets of scores were correlated with the homeroom teacher's rankings. The correlations were .68 and .70 respectively.

Following Pilot Study Number Three, a final version of the Student Involvement Survey form was prepared. Minor changes in the wordings of certain definitions were made, the Special Events category was incorporated into other categories, and a page with general instructions and a section for student data was added.

Scoring the Student Involvement Survey Instrument

In order to score the SIS, separate weightings were assigned to each of the three levels of penetration. The weightings were as follows: Level 1 was weighted 1 and levels 2 and 3 were weighted 2 and 3 respectively. Similarly, the following weightings were given to the three columns in the Number of Times section:

Once only received a weight of 1; Two to five times was weighted 2; and Six or more times received a weight of 3. The total of a student's weighted performance scores and weighted number of times scores was deemed to be the measure of his or her involvement in school activities. The sum of all student totals for a given school or group of schools was the data that constituted the index of involvement for the school or group of schools in question.

The number of times a student entered into activities at the different levels was considered to be a measure of the quality of the involvement and the degree of responsibility that the student assumed for the maintenance of the activity. The total number of entries into each of the three levels of penetration for a school or group of schools constituted the raw data for comparing the quality of student involvement between schools or groups of schools.

The Research Population and Sample

The research sample in this study was drawn from ten intermediate schools and ten K-8 schools in Eastern Ontario.

At the time, the ten intermediate schools were all of the schools of this type in the region that had been in operation for two or more years. Six schools were located in the City of Ottawa and the adjacent suburban communities; the others were located in three relatively small cities within a 120-mile radius of Ottawa. Of these schools, nine housed grades seven and eight only and the remaining one had a small grade six in addition. The average enrolment of these schools was 613, the smallest having a student population of 319 and the largest, 936. The number of students in the grade eight classes ranged from 158 to 558 with an average of 311.

The ten K-8 schools included in the study were located in the same geographical region. The attendance area of each of these schools, with one exception, was the same for all grades including kindergarten. In the one school, the intermediate grade students were drawn from a wider attendance area. The average enrolment of these schools was 482, ranging from 235 to 850. The number of grade eight students ranged from 30 to 132, with an average of 61.

A random sample of 15 boys and 15 girls was drawn from the grade eight students in each of the twenty schools. The total number of subjects was 597, 297 in the intermediate schools and 300 in the K-8 schools.

Analysis of the Data

The major independent variable in this study was the type of school — K-8 or intermediate. The dependent variable was the participation of the grade eight students in school activities.

The main purposes of the statistical analysis were to compare the level of participation in school activities of grade 8 students in the K-8 schools and the intermediate schools included in this study and to compare the degree of responsibility for the maintenance of these activities assumed by these two groups of students.

To this end, a multivariate analysis of variance with nested factors was used. This test compared the levels of participation in the two types of schools with schools tested across the twelve school activities selected for this study and across the three levels of penetration.

A post hoc univariate test was also used to indicate which of the activities and which of the levels of penetration accounted for the major differences between the two groups.

In all cases the MANOVA was carried out using the program of the Department of Educational Research Services Library of the University of Alberta, Canada (DERSLIB).

The level of significance was set at .05. The Multivariate F ratios for the hypotheses indicated that the differences were significant ($p<.001$).

TABLE 1

F RATIOS FOR UNIVARIATE TESTS OF EQUALITY OF STUDENT INVOLVEMENT IN TWELVE SCHOOL ACTIVITIES

	School Activities	*Inter. Mean*	*K-8 Mean*	*F*	*p*
1.	Games with Other Schools	4.4	9.7	103.3	.00
2.	House League Intramural Sports	18.1	20.7	10.7	.00
3.	Plays, Concerts, Public Performances	6.5	6.6	0.1	.73
4.	Music	2.0	3.1	16.3	.00
5.	Parties, Dances	3.9	3.3	5.6	.02
6.	Money Raising, Charitable Projects	6.4	6.9	1.9	.17
7.	Hobby Clubs, Special Interest Groups	1.7	2.1	1.4	.24
8.	Service Clubs, Helper Group	1.6	3.5	47.7	.00
9.	Students' Council, School Elections	5.1	3.0	55.1	.00
10.	School Newspaper, Year Book	2.0	2.1	0.2	.66
11.	School Offices	9.3	8.2	6.2	.01
12.	Library, Resource Centre	4.9	5.1	0.8	.38

The means under school types for each activity and penetration level are reported in Tables 1 and 2. The direction is toward K-8 schools. In general, therefore, the grade eight students in the K-8 schools surveyed were more involved in school activities and penetrated more deeply into these activities than their counterparts in the intermediate schools.

TABLE 2

F RATIOS FOR UNIVARIATE TESTS OF EQUALITY OF STUDENT PENETRATION INTO THREE LEVELS OF PENETRATION

Levels of Penetration	*Intermediate Mean*	*K-8 Mean*	*F*	*p*
Level 1	8.66	7.80	7.67	.00
Level 2	4.90	5.78	10.81	.00
Level 3	6.58	7.86	20.32	.00

In order to investigate student involvement further, a post hoc univariate analysis of variance was carried out in each of the twelve school activities. The univariate *F* ratios that are reported in Table 1 indicated that differences beyond the .05 level of significance in the direction of K-8 schools occurred in the following activities: Games with Other Schools; House League; Intramural Sports; Music; Service Clubs; Helper Groups. At the same time, significant differences favouring the intermediate schools were indicated in relationship to the following activities: Parties and Dances; Students' Council; School Elections; and School Offices.

Student penetration into the activities was investigated further because the depth of penetration is related conceptually to the degree of responsibility for the maintenance of the activity assumed by the students. A post hoc univariate analysis of variance was carried out in each of the three levels of penetration. The *F* ratios given in Table 2 indicate that grade eight students in K-8 schools were more involved at the second and third level of penetration, while grade eight students in intermediate schools were more involved at the first level. In all cases, the level of significance was beyond the .05 level.

Discussion

Student Participation

One of the assumptions of the study was that the level of student involvement in school activities is an indication of the school's success or lack thereof in meeting the unique aims of intermediate education.

The results of the statistical analyses support the hypothesis and indicate that the students in K-8 schools are generally more involved in school activities than those in intermediate schools. This finding bears out the results of previous behaviour setting studies on school size and student participation (Barker & Gump, 1964). It is in keeping with Willems' (1974) claim that the rate of participation diminishes as school size increases.

In addition to greater participation on the part of small school students, behaviour setting studies also indicate that small school students become involved in a wider variety of school activities (Gump & Friesen, 1964a). An inspection of the means reported in Table 2 shows that the students in the K-8 schools are involved as much or more than their intermediate school counterparts in nine of the twelve activities included in the survey. This suggests that, in addition to being more involved generally, these students probably participate in a wider variety of activities. This is corroborated by the data gathered prior to the study from 12 of the 20 schools included in the study. These data showed that the six K-8 schools surveyed offered 315 activities while the six intermediate schools offered 314. These data bear out Barker and Barker's (1964) contention that "small high schools are not so small on the inside" and lend support to the findings which indicate that the proportion of settings to the number of students is higher in small schools (Gump & Friesen, 1964a).

The post hoc statistical analyses carried out in the twelve activities revealed that the grade eight students in the K-8 schools are more involved in Games with Other Schools, House League or Intramural Sports, Music Groups, and Service Clubs or Helper Groups. On the other hand, the grade eight students in intermediate schools are more involved in Parties and Dances, Students' Councils and School Elections, and School Offices.

Of the seven activities where differences occurred, the four which appear to have the greatest potential for active participation are in the direction of the K-8 schools. Games with Other Schools and House League Sports were defined on the Student Involvement Survey (SIS) as indoor and outdoor sports including team and individual sports. Generally speaking, sports at the elementary level are not spectator sports. Therefore, it is probably reasonable to conclude that most of the involvement in these activities is at an active performance level. In designing the SIS, it was presupposed that participation in Music Groups and Service Clubs had to be at an active level and, therefore, the first level of involvement was not included on the instrument. Consequently, the student responses in the Music and Service Club sections of the instrument are all at the active level.

On the other hand, two of the activities that show a difference in the direction of the intermediate schools probably have more potential for passive onlooker roles. Parties and Dances are usually large group activities—especially in

intermediate schools—where the majority of students participate at the attendance level. Attendance was placed in the lowest level of involvement on the SIS because it implied little or no requirement for exercising personal initiative or responsibility. The significant difference for this activity in the direction of intermediate schools may be attributable to the relatively large number of students in these schools. Similarly, the difference in involvement between intermediate schools and K-8 schools in Students' Councils and School Elections may be a function of the fact that the majority of participants are in the voter category—the lowest level of involvement. This majority is proportionately larger in the intermediate schools because the constituencies in these schools are considerably larger.

In summary, the study revealed that the grade eight students in the K-8 schools in the sample are generally more involved in school activities than the comparable students in the intermediate schools in the sample.

Student Responsibility

The examination of the pattern of involvement of students from the two different types of schools suggests a difference in the quality of the involvement as well. The question of quality is also related to the concept of penetration. The depth of an individual's penetration into a setting is considered to be an indication of the individual's sense of obligation or responsibility for the maintenance of the setting. It was predicted that grade eight students in K-8 schools would assume a greater responsibility for the maintenance of school activities than grade eight students in the intermediate schools.

The results of the statistical analyses indicate that the students in the K-8 schools penetrate school activities more deeply than the students in the intermediate schools. This finding suggests that the students in the K-8 schools assume a greater degree of responsibility for the activities in which they participate and probably feel a greater sense of obligation than the intermediate school students.

The post hoc tests on the three levels of penetration reveal that the intermediate students are more involved in school activities at the first level of penetration while the K-8 students are more involved at the second and third levels. These findings give added support to the hypothesis. They are also in keeping with the findings reported in the literature—students in small schools hold more positions of responsibility in a wider variety of activities than students in large schools (Gump & Friesen, 1964a) and leadership achievement is higher among students from small schools (Baird, 1969).

The fact that small school students assume more positions of responsibility is explained by the concept of undermanning (Wicker, 1968). The data collected on activities in 12 of the schools in the study lend support to the undermanning theory. The ratio of activities to students for the intermediate schools surveyed was .2:1 while the ratio for the K-8 schools was almost 1:1. In other words, far fewer students are available to maintain the activity settings in the K-8 schools. Consequently, many more students are involved in responsible roles in these schools.

In summary, the study shows that grade eight students in the K-8 schools in the sample penetrate school activities more deeply than their counterparts in the intermediate schools in the sample. Furthermore, the examination of the involvement at the different levels of penetration indicate that the students in the K-8 schools occupy more positions of responsibility in school activities which, in turn, gives support to the idea that students in small schools generally feel a greater sense of obligation and responsibility for these activities.

Conclusion

These findings have implications for intermediate education if the students at this level are to have real opportunities to assume responsibility and to make decisions—the prerequisites for developing independence and individuality (Desjarlais & Rackauskas, 1975). The results call into question the efficacy of intermediate schools in fostering student participation in school activities. This could be an educational issue of some import because many intermediate schools exist and more will undoubtedly be established. School planners should take into account the effect of size on behaviour when new intermediate schools are being considered. This effect should be balanced against the potential advantages of the more specialized staff and facilities that larger schools generally make possible.

There is a need for more research on student involvement. The possible effects on involvement of the different rates of maturation of boys and girls during their early adolescence could have important implications for school organizational patterns. Another question that might be investigated is the influence that the number of years in a school has on student involvement. This factor could favour K-8 schools where students are normally resident for more years than their counterparts in intermediate schools. The greater range of grades in the K-8 schools and the closer association of these schools with their communities may give rise to more opportunities for student involvement in helper roles and community activities. These questions could be looked at in conjunction with a more detailed investigation of the intermediate school environment and its effect on student behaviour.

Clearly defined academic programs and well trained, sensitive teachers of course are of paramount importance in schools, large or small. These factors will always be central to the success of schools. However, the matter of student involvement in school activities is also important, especially at the intermediate level. In analyzing the implications of the research by Spady (1971), Erickson (1977) puts the case for school activities thus:

> The extracurriculum, having a down-to-earth, here-and-now quality, featuring activities often consequential to both student and adult communities and demanding attributes not essential to classroom functioning, may provide a superior learning environment, particularly for attitudes and skills needed in college and later occupational endeavors. (p. 13)

In terms of the research presented in this paper the matter comes down to a question such as this: "Is the little fellow in the grade eight class more likely to be on the school baseball team if he is in K to 8 school?"

The answer is: "Yes, probably."

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ERRATUM

Volume XXVI Number 1, March, 1980 issue of AJER: *Predicting the Educational Bias Effect* by G. G. Foster, B. Algozzine and R. C. Eaves should read: G. G. Foster, B. Algozzine, R. C. Eaves and M. H. Diebold. Dr. Diebold participated in the planning, data collection phase, and manuscript editing of the study. Drs. Algozzine, Foster and Eaves sincerely regret and take responsibility for the oversight. (Martin H. Diebold is Assistant Professor of Special Education at Auburn University, Auburn, Alabama.)

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Patterns of Work Values Held by Secondary School Girls

The work values of 541 girls registered in an urban secondary school were measured using Super's Work Values Inventory. It was concluded that these girls hold work values which differ very little from grade to grade. Generally, the girls tended to value security, achievement, and the "good life," and to value least management, intellectual stimulation, and esthetics. The results demonstrate the need for educators to identify the values of their students as they attempt to understand more fully the reasons for the students' behaviour.

Two major factors lay the foundation for an educator's greater understanding of learners' functioning level: a knowledge and understanding of learners' level of development, and sensitivity to their value system. Such awareness will also serve as a guideline for predicting the learners' future development and behaviour.

Recent professional literature is replete with studies describing the various value systems held by adolescents. This paper attempts to provide additional insight into one specific set of values: the work values held by adolescents. Such insight is necessary if individuals involved in helping youth are to assist them in identifying and understanding the implications that their value orientations may have in relation to their educational and vocational planning.

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Green (1946) contended that an individual's complete value system must be considered by the helping professions. Consequently, the values held by young learners must be a matter of concern for any practitioner involved in the area of assisting them (Super, 1970). This is especially true if Newton's (1967) observation is correct—that the school presents an environment which practically demands that adolescents conform to external standards. Educators who introduce values clarification procedures to the adolescent, especially to one who lives in an environment which has a set of values dissimilar from those of the educators, will produce a frustrating effect (Thomas, 1974). This frustration may, however, be somewhat softened. Domenichetti (1970) reports evidence suggesting that many diverse work values held by adolescents change continuously, surfacing and disappearing at various stages of their growth and development.

Education and work values are difficult to separate. Both are still prized in our western society. The right to decide the type of work one will engage in, and for whom and when one will work, is a freedom which can be exercised if the individual wishes to do so. This potential of choice is highly valued.

Williamson (1959) notes that in order for individuals to develop a clearer perspective of their occupational development, vocational calling, or career goals, they must be aware of their personal work values.

A need exists then for helping agents to identify and understand the work values held by these young people, and to examine the effect of their value systems upon their various actions. The present paper is addressed to similarities and differences in work values as a function of grade level. It is hypothesized that the work values held by girls in Grades 9-12 will show a developmental trend.

Method

Subjects

The sample consisted of 541 female students whose ages ranged from 14-20 years and who were enrolled as full-time day students in a southwestern Ontario urban secondary school. This sample accounted for 96% of the total female population; the 51 male students were not included in the study due to the small population. Table 1 indicates the distribution of the 541 students.

TABLE 1

DISTRIBUTION OF SUBJECTS

Grade Level	*Sample Size (N)*
9	145
10	157
11	126
12	113

Students attending the school tended to come from below average income families; furthermore, the majority of these students specialized in business and

commerce-related studies, and no more than 10 percent continued their education beyond Grade 12.

Procedure

Super's (1970) Work Values Inventory (WVI) was administered to the total school population in early May, 1973. Although the participants scores their own WVI, the senior author examined all recorded scores for error. Data produced by this administration were rank-order correlated among all grade levels for the 15 WVI variables. In addition to the average rank obtained by this procedure, the total absolute deviation and amount of deviation from the mean were calculated for each of the 15 values.

Results

The matrix resulting from the rank-order correlation of the 15 WVI variables is reported in Table 2. Table 3 makes it possible to discern which group of students deviated most from the average for each of the 15 WVI variables.

TABLE 2

CORRELATION MATRIX

9	1.00			
10	.85	1.00		
11	.89	.85	1.00	
12	.96	.82	.91	1.00
	9	10	11	12

The hypothesis of the developmental trends among work values showed mixed support. Upon a review of the data, it is evident that of the 15 WVI variables only six can be classified as showing major differences. The balance were essentially similar for all grade levels.

A value showing a deviation of ± 2.0 was considered to be different. A value deviating more than ± 2.0, and coupled with a proportion of the total absolute variation of over 0.4 was considered to be even more meaningful. Of the six values classified as different, five appeared with a proportion of variation greater than 0.4.

It may be useful to consider the grade by grade breakdown of differences. The average rank of the values for the ninth-grade girls did not acquire a large enough deviation from the average on any variable sufficient to be viewed as different from girls in any other grade. (The three such values reported in Table 3 are all less than the required absolute value of 2.00.)

Three of the six differing values with large differences can be attributed to the Grade 10 girls: Creativity, Supervisory Relations, and Way of Life. These

TABLE 3

TABLE OF DEVIATIONS

Work Values Inventory Variable	*Group(s) With Largest Difference* (1)	*Average Rank* (2)	*Largest Deviation*[a] (3)	*Total Absolute Deviation*[b] (4)	*Proportion of Variation*[c] (5)
Altruism	11	4.75	+1.75	5.0	0.35
Esthetic	11	14.25	-0.75	1.5	0.5
Creativity	10	11	+3.00*	7.0	0.43
Intellectual Stimulation	11	12	-2.00*	4.0	0.5
Achievement	9	3.25	-1.75	3.5	0.5
Independence	10, 11	11.5	-0.75	2.0	0.38
Prestige	11	10.5	-2.75*	5.25	0.52
Management	11	14.75	+0.75	1.5	0.5
Economic Return	12	4.62	+2.62*	7.5	0.35
Security	12	3.25	-1.75	5.0	0.35
Surroundings	9, 10	7.0	-1.00 +1.00	2.0	0.5
Supervisory Relations	10	3.38	+2.38*	4.74	0.5
Associates	9, 10	8.5	+1.5 -1.5	4.0	0.38
Way of Life	10	2.0	-3.00*	7.0	0.43
Variety	10	9.25	-1.25	3.5	0.5

* Indicates values classified as different.

[a] The ranking of the indicated group can be obtained by subtracting the value in column (3) from the value in column (2).

[b] This column is the sum of the absolute values of all the differences from the value in column (2).

[c] This value is obtained by dividing the value in column (3) by the value in column (4).

values also earned enough of the proportion of variation to make them very meaningful, accounting for more than 40% of all the variation for that value. The strength of Creativity and Supervisory Relations was above average for all grades in average rank, reflecting an increased desirability for these values for the Grade 10 group; Way of Life showed the opposite deviation, reflecting a lower desirability.

It was observed that the group of Grade 11 girls differed from the others by having the largest deviation from the average and the highest proportion of variation on two values, Intellectual Stimulation and Prestige. Both values were meaningfully lower than the average rank.

The group of Grade 12 students were above average on one value, Economic Returns. However, this value showed some fluctuation from grade to grade and their group's +2.62 difference accounted for only about one-third of this fluctuation.

Average ranking of the values should also be considered. The highest ranked value was observed to be Way of Life, with Achievement and Security holding second and third place. At the other end of the scale, the values Intellectual Stimulation, Esthetics, and Management, respectively, held the last three positions.

Discussion

The sizes of the correlations presented in Table 2 are all sufficiently large enough to suggest that the 15 WVI variables are closely related. The Grade 10 group, however, appears to be somewhat removed from the other groups in the things they value. This has led to further investigation of this research data.[1] This observation suggests that these girls hold work values which differ very little from grade to grade.

On a grade by grade breakdown, the Grade 9 girls do not divert from average. The grade 10 girls seem to be showing signs of self-actualizing concerns by their higher rating of Creativity and by the lowered value of Way of Life. This event is somewhat anomalous, but has been explained elsewhere as a counselling effect. The grade 11 girls seem to be rejecting the esteem-oriented variables of Intellectual Stimulation and Prestige, suggesting an affiliation orientation on the Maslovian Hierarchy. Finally, the Grade 12 girls, only 2 months from graduation, reflect a practical note by rating Economic Returns higher than the rest.

The general picture would seem to imply that many of the students, especially those in Grade 11, do not desire work which entails much thought; in addition, they are not overly concerned with how or why things work. Consistent with this trend is the noticeable fact that these girls are not esthetically motivated. Also, because Management is least valued, it becomes more obvious that the majority of the students are not desirous of a position of authority. Levine (1971) may have indicated the basis for this trend:

> Mitchell (1968) reported that low achievement press was independently associated with socioeconomic status and proportion of students expressing a desire for college training, thus suggesting that the "tone" of low income schools as well as the attitudes prevalent among their students may have a depressing effect upon educational aspirations. (p. 109)

It is generally accepted that educators in a secondary school setting ought to know their clientele. In the present study, the work values held by girls were examined. These girls are concerned with security and the "good life" and tend to value management, intellectual stimulation, and esthetics least. This raises serious questions related to educators understanding the values held by their students as a basis for understanding the various kinds of behaviour exhibited by the students. These are questions which must be considered not only by educators but by institutions which prepare them for helping roles.

Notes

1. It now appears that subgroups of the Grade 10 group who received counselling one year earlier showed significantly distinctive patterns of work values (see Wearne and Powell, 1977).

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Ethnic Schools in Three Canadian Cities: A Study in Multiculturalism

This paper presents data on ethnic schools in three Canadian metropolitan centres, dealing with selected characteristics such as social background and attitudes toward ethnicity of its personnel, curricular and instructional emphases and practices, and institutional and organizational features. Using these descriptive data, it then discusses some of the indirect but probably more important functions of these schools with respect to ethnic socialization and development of ethnic identity of their students. The discussion is used to formulate and suggest some research questions related to the broader role ethnic schools might play in future under conditions of cultural pluralism. The paper is intended to serve as a corrective to the relatively narrow focus implicit in discussions on the role of the schools in teaching ethnic languages and, at the same time, to stimulate the interest of educational researchers in the study of ethnic institutions.

Interest in ethnic schools has been stimulated by a resurgence of ethnicity here and abroad. Ethnic diversity and its implications for political integration and stability within nation-states have received considerable scholarly as well as political attention during recent years (Bell & Freeman, 1974). Canada has developed into a multi-ethnic society, particularly since World War II. According to the 1971 census, the Canadian population was distributed as follows: 44.6 percent were of British extraction; 28.7 percent, of French extraction; and 27.5 percent, of approximately 30 other ethnic origins.[1] The Royal Commission on Bilingualism and Biculturalism was established in 1963 by the Federal Government to deal with problems related to this ethnic diversity.

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Book IV of the report of the Commission examined the question of cultural and ethnic pluralism in Canada and the status of various ethnic cultures and languages. One question the Commission attempted to answer was, to what degree have non-British, non-French ethnic groups remained attached to their original cultures and languages? (Canada, RCBB IV, 1969). Subsequently, the Federal Government accepted and endorsed the recommendations and spirit of Book IV of the Report of the Royal Commission on Bilingualism and Biculturalism and thereby adopted its policy of multiculturalism on October 8, 1971. To implement this new policy of multiculturalism, the Cultural Development Program in the Department of Secretary of State was instituted to emphasize, in particular, research on language, language retention and cultural development, and the role of organizations such as educational institutions in language and cultural retention and development. Since the publication of this Report, the phenomenon of language and cultural maintenance in Canada has emerged as an important area of investigation in the social sciences.

The major objectives of this paper are two-fold: firstly, to look at the role of language retention in cultural maintenance, and secondly, to present data regarding some selected characteristics and probable functions of ethnic schools in Canada. In addition, it is hoped that the paper will draw attention of Canadian educators to these schools as an important area of research. Data for this paper are drawn from a study (Pannu & Young, 1976), funded by the Department of Secretary of State, which was intended to examine the role of ethnic schools in the teaching and maintenance of ethnic languages.

Language Retention and Cultural Maintenance

Prior to the early sixties, studies of immigrant populations tended to emphasize processes of assimilation and integration and problems of disappearing ethnic identities in the cultural melting pots of the host societies (Elliott, 1971). Much less work had been devoted to studying the processes whereby ethnic groups resisted total assimilation. More specifically, the processes of cultural maintenance and language retention had been neglected in research on immigrants. This neglect of the phenomenon of ethnic survival and continuity may have been the result of essentially ideological presuppositions underlying the theoretical perspective of studies of ethnicity (Richmond, 1969).

In Canada, however, this notable imbalance in social science research has been redressed in recent years. For instance, in the past decade the number of studies of the various social and cultural factors which contribute to cultural maintenance and ethnic identity has notably increased (Berry, Kalin, Taylor, Lamarche & Christian, 1975; Drieger, 1973, 1974; Drieger & Church, 1974; Drieger & Peters, 1973; Fathi & Kinsley, 1968; Gold, 1973; Lieberson, 1970; Migas, 1975; Millet, 1975; Palmer, 1972; Reitz, 1974).

Studies of the Canadian social structure (Clements, 1975; Porter, 1965) have helped bring to notice and underline the fact of the continuity of ethnic diversity and its unchanging character by pointing to its demonstrable manifestations in the patterns of social stratification. However, as early as 1960, one Canadian study of ethnic communities in Montreal (Breton, 1964) focused on features of their social

organization—the degree of institutional completeness or self-sufficiency—which enabled each ethnic community to attract the immigrant into its social boundaries and thereby resist assimilation of the ethnic group into the host society. This study drew attention to the fact that the degree of institutional completeness of an ethnic community was an important factor in determining whether the immigrants would socially integrate in the host society at large, would be attracted to another ethnic community, or would integrate into the community of their ethnicity. In addition to colour and religion, a high degree of institutional completeness of an ethnic group was found to be prominently related to its distinctive language. The dependence of the survival of an ethnic community on these two factors suggests that there may be a critical link between an ethnic group's access to its distinctive language and its cultural survival, although this relationship may be mediated by the degree of institutional completeness. Other studies tend to bear this out (Drieger & Church, 1974).

Further, Richmond's study (1972) of immigrants and ethnic groups in Toronto focused on those features of ethnic group life and social organization which are related to the group's efforts at cultural maintenance. The study of language and ethnic relations in Canada conducted by Lieberson in 1966, the research and other materials included in the Report of the Commission on Bilingualism and Biculturalism (Canada RCBB IV) and a few recent studies on non-official and official languages in Canada conducted under the sponsorship of the Department of Secretary of State following the adoption of the policy of multiculturalism by the Federal Government (Berry et al., 1975) have examined certain aspects of the processes of language and cultural maintenance in Canada. It should be noted, however, that although these studies have examined several aspects of cultural maintenance, few have focused directly on institutional mechanisms of language maintenance and cultural identity per se.

Institutional Mechanisms of Language Retention

The language maintenance efforts of ethnic groups in Canada, as well as the United States, have taken several forms. The two most well-known are (a) the ethnic school and (b) the ethnic media and press. In the United States, Fishman's research on the ethnic schools (1966) was a pioneering venture which sought to focus on two dimensions of the phenomenon. It sketched the main organizational and institutional features of the schools run by or on behalf of ethnic groups in the United States: their size, auspices, faculty, student body, curricula, etc. From these descriptive data, Fishman derived the language maintenance implications of these schools. He concluded that the ethnic group school was the most active language maintenance institution in the majority of ethnic communities. These schools succeeded in reinforcing or developing moderate comprehension, reading, and speaking facilities in their pupils. The level of facility attained in the languages by pupils was adequate to provide a foundation for language and cultural maintenance in the ethnic communities.

In Canada, ethnic schools have been functioning for several decades. However, little was known about these schools until Krukowski and McKellar (1966) completed a study on Canadian ethnic schools for the Royal Commission on Bilingualism and Biculturalism. The study included 585 such schools run by or on

behalf of 21 different ethnic groups. Based on a questionnaire survey, this study included information on the schools regarding sponsorship, location, financial resources, curriculum, teaching staff, textbooks, and common problems. According to the B & B Commission Research Director, the study included useful information. Nevertheless, it was incomplete and the quality of the descriptive data inadequate. Volume III of the Report of the Commission on the Position of French Language in Quebec (more frequently referred to as the *Gendron Report*) dealing with ethnic groups, examined the question of ethnic groups in Montreal. It directed specific attention to "ethnic schools, their significance, the role they play in the position of French language in Quebec, that is, whether they made the knowledge and use of French easier, and to what extent they could promote these features" (Government of Quebec, 1972, p. 248). It provided very brief descriptive information about such schools with no information on curriculum, textbooks, or institutional organization.

More recently a study of ethnic language instruction was undertaken in Toronto in 1973, the purpose of which was "to co-ordinate information regarding 'third' language schools in one document embracing all cultural communities in Metropolitan Toronto" (Canada, Secretary of State, 1973, p. 1). This document was restricted to a presentation of the names, addresses, ethnic affiliation and size of 265 ethnic schools in Toronto.

The Non-official Languages Study (O'Bryan, Reitz & Kuplowski, 1974) also indirectly dealt in part with one aspect of ethnic schools in third language retention. It examined the degree of support among different ethnic groups for these schools and found widespread support of the ethnic school for all groups, although the support varied greatly from one ethnic group to another.

These studies notwithstanding, the general lack of knowledge and interest of Canadian social scientists and educational researchers regarding the existence, nature and role of these schools, continues more or less undiminished. Borrowing Fishman's words in order to describe the situation in this country, the supplementary language schools in Canada have remained "largely terra incognita." The study of these schools calls for the sustained attention of Canadian scholars not only because the schools represent an important facet of Canadian social and educational history, or because the results of research may provide useful inputs to policy formulation related to the federal government's policy of multiculturalism, but also because they may serve as sources of valuable data relevant both to the study of ethnicity and to an aspect of Canadian education hitherto unexplored.

Research Procedure

This study focused exclusively on large urban centers in Canada west of the province of Quebec whose populations included sizeable numbers of individuals of non-English or non-French ethnic origins.[2] Urban centers were selected because conscious efforts by ethnic groups for the maintenance of their traditional languages are known to be concentrated in such community settings (Fishman, 1966).

As to the selection of specific urban centers, the decision was made to include three cities located in different regions of Canada which contained significant numbers of individuals of "other" ethnic groups. As a result, the cities of Toronto, Edmonton, and Vancouver were selected. Specific ethnic groups included in the sample from each city were as follows:

Toronto	*Edmonton*	*Vancouver*
Chinese	Chinese	Chinese
Greek	German	German
Hungarian	Hungarian	Greek
Italian	Italian	Italian
Jewish	Polish	Ukrainian
Polish	Ukrainian	
Ukrainian		

As can be seen, a total of eight different ethnic groups were selected and each group was represented in more than one city.

Data Collection

Preliminary field work by the researchers consisted of a census of supplementary language schools within the three cities. From this census a total of 142 supplementary language schools were identified. The actual data collection, completed in two phases, was conducted by the Survey Research Centre, York University.

TABLE 1

NUMBER OF ETHNIC LANGUAGE SCHOOLS AND RESPONSE RATE FOR MAIL-OUT SURVEY (Phase One)

	Edmonton		*Toronto*		*Vancouver*	
	Schools	*Completed*	*Schools*	*Completed*	*Schools*	*Completed*
Chinese	2	0	5	3	3	1
German	11	9	not included		7	4
Greek	not included		5	2	4	3
Hungarian	1	1	3	2	not included	
Italian	2	2	1	1	6	1
Jewish	not included		34	15	not included	
Polish	1	1	12	9	not included	
Ukrainian	14	9	25	11	6	4
TOTAL	31	22	85	43	26	13

Phase One of the study utilized a questionnaire mailed to the directors or principals of the 142 schools. Of this number, 78 responded to and completed the questionnaire.[3] The questionnaire was designed to elicit information about various aspects of the schools such as organizational structure, financial support, personnel, and curriculum.

Phase Two of the data collection consisted of structured interviews. In this phase, 167 respondents out of a total of 204 identified were interviewed, yielding a response rate of 82%.[4] Interviews were conducted in the language of choice of the respondents. Questions of a qualitative nature such as attitudes toward ethnicity and teacher morale were included in the interview questionnaire.

TABLE 2

RESPONDENTS SELECTED FOR INTERVIEW AND COMPLETION RATES
(Phase Two)

Ethnic Group	*Edmonton*		*Toronto*		*Vancouver*	
	Selected People	*Completed*	*Selected People*	*Completed*	*Selected People*	*Completed*
Chinese	not included		6	5	7	3
German	27	25	not included		17	12
Greek	not included		9	6	7	6
Hungarian	3	3	5	5	not included	
Italian	4	3	15	6	6	3
Jewish	not included		34	33	not included	
Polish	3	3	6	3	not included	
Ukrainian	29	28	15	13	11	10
TOTAL	66	62	90	71	48	34

Findings

Institutional Characteristics

Ethnic schools are not a recent occurrence. Of the schools sampled, over 70% were in existence prior to 1965. This was most evident for German and Ukrainian schools. Of more recent origin were Greek schools, 60% of which were established during 1970-72, and Italian schools, 50% of which were established during the same time period.

In terms of the original sponsorship of the schools, the most common sponsor was the church or associated religious personnel: 46.2% of all schools were initiated by priests, ministers, rabbis, or church groups. This was particularly true for Hungarian and Chinese schools and least likely for Greek schools. The next most common sponsors of the schools were ethnic-cultural organizations (25.6%) and the third most frequently reported sponsors (12.8%) were parents' groups.

While churches were the original loci of ethnic schools, the trend now is toward the use of public school facilities. At the time of formation, for ethnic groups as a whole, 61% had their schools located in church or religious centers; in 1974, approximately 35% of ethnic schools were located in public or separate school buildings. Approximately 90% of the ethnic schools were affiliated with some other institution or organization at that time, the most common affiliation being with church groups (44.2%) followed by ethnic-cultural organizations (19.5%). However, 40% of the Greek schools and 23% of the German schools were not affiliated to or sponsored by formal organizations.

TABLE 3

NUMBER OF STUDENTS AND TEACHERS
IN ETHNIC LANGUAGE SCHOOLS

	Schools	*Teachers*	*Pupils*	*Student Teacher Ratio*
Chinese	4	25	239	9.6
German	13	71	848	11.9
Greek	5	11	527	47.9
Hungarian	3	18	305	16.9
Italians	4	129	3,507	27.2
Jewish	15	359	4,419	12.3
Polish	10	184	2,434	13.2
TOTAL	76	837	13,301	

All ethnic groups utilize more than one source for funding their activities. Tuition fees charged students were an important source of funding for 90% of all schools. In addition to tuition fees, schools were funded by church or community organizations. All the Hungarian, Italian and Jewish schools charged a tuition fee. However, in 30% of Polish schools, 25% of Chinese schools, 20% of Greek schools, and 15.4% of the German schools, students were charged no tuition fees. As to the amount spent per student per year on textbooks and other instructional materials, the average was about $13 per student per year. By ethnic group, it was highest for Jews ($27) and Ukrainians ($14) and lowest for Germans ($2.40) and Hungarians ($3).

In the 76 schools sampled, the total student enrolment was 13,301 students with an average of 175 students per school. The largest average enrolment was for Italians with an average of 877 students per school followed by Jews with an average of 295 students; Ukrainians, 110; Greeks, 105; Poles, 102; Hungarians, 101. Smallest average enrolments were reported for the Chinese schools with an average of 60 students followed by the German with an average of 65 students. It is significant to note that the range of enrolments in the sampled schools was

extensive from a low of 9 to a high of 2,860 students. Regarding student/teacher ratios, Greek schools had the highest student/teacher ratio of 48 to 1. For the remaining groups the number of students per teacher was as follows: Italian, 27; Polish, 26; Hungarian, 17; Ukrainian, 13; Jewish, 12; German, 12; and Chinese, 10.

The problem of student attrition in ethnic schools was two-fold: one, the percentage of students dropping out during the year; and two, the percentage not returning for the following year. For all schools reporting in phase one, 96% reported less than a 20% drop-out rate during the year. The drop-out rate was highest, however, for the Chinese, where one-quarter of the schools indicated a drop-out rate of over 50%. Regarding the year-to-year attrition rate, close to three-quarters (70.5%) of the schools reported that over 80% of their students returned the following year. Attrition was lowest for the Polish, Jewish, and Greek schools and highest for Hungarian and Italian schools. As can be seen in Table 3, these two groups had higher student-teacher ratios than all other groups except the Greeks.

There was considerable variation between ethnic groups with reference to changing patterns of student enrolment. Concerning trends of student enrolments for the ethnic groups taken as a whole, 48.7% of the schools had experienced increased enrolments over the past few years, while 15.4% indicated that the student enrolment had remained the same. However, when comparing ethnic groups with each other, the only ethnic groups that reported no decrease in enrolments in any of their schools over the past few years were Greek and Chinese. The ethnic group indicating the largest percentage decrease was the Hungarian, where 66.7% of the schools indicated a decrease in enrolment over the years. Of the German schools, 46.2% experienced a decrease, compared to 45.9% of the Ukrainian schools, 40% of Polish schools, and 33.3% of the Jewish schools. These enrolment changes might well reflect the changing age structures of the population of each ethnic group rather than a lack of commitment to their schools.

Instructional and Curricular Emphases

Looking specifically at the language of instruction, it was found that approximately three-quarters of the schools used English as well as the relevant ethnic language as a medium of instruction. This was particularly true for Jewish schools where 86.7% of schools used English. In German schools, 84.6% of schools reported the use of English. Only 26.7% of the ethnic schools reported that no English was used in teaching. No Greek schools in the sample used English in instruction, and over two-thirds (67%) of Hungarian schools reported no use of English in teaching. Ethnic groups in Edmonton were the most likely of the three cities to use English in the schools; 95.2% of the groups in Edmonton used English as against 62.8% in Toronto and 72.7% in Vancouver.

Teaching language skills formed an important objective in all the schools. However, different language skills were differentially stressed. For instance, the schools placed most emphasis on the acquisition of conversational ability. This was followed by reading fluency and writing skills. Learning of grammar was not emphasized.

As to subject areas included in the curriculum, the most emphasized were literature, history, and general culture (including art, music, and dance). This emphasis on selective cultural and linguistic skills was often reinforced through the teaching of religion. One interesting omission was civics (political structures and processes) which was stressed least for all groups. The pattern of subjects emphasized in the curriculum seems to indicate that the central objective of these schools, apart from teaching selected skills and general proficiency in language, was the socialization of the child into the general culture of the ethnic group and the development of strong ethnic identity. The subject most popular with students, as reported by the teachers, was history of the homeland of the ethnic group. With reference to individual ethnic groups, the Chinese teachers reported that students liked music and dance, while the German teachers reported equal popularity of geography, music and dance, and literature. History of the ethnic homeland was seen as the most popular subject by the Greek, Polish, and Ukrainian teachers, and geography by the Italian teachers.

A pressing problem for nearly all schools was that of finances. Generally, students were charged fees, but this source of revenue was inadequate to meet the schools' needs. Nevertheless, educational personnel felt that the responsibility for financial support should be shouldered primarily by the parents, secondarily by the provincial governments, and lastly by the ethnic community. Interestingly, few felt that the federal government should be financially responsible in any way.

Textbooks were cited as another significant problem for most schools. Few books were published or available for purchase in Canada. Consequently, books were difficult to obtain. (Most books used in the schools were outdated and/or were published in other countries and did not reflect the interests of Canadian students.) Most schools could not afford elaborate audiovisual aids and, for all but a few, language laboratories were out of the question. For these reasons, traditional teaching techniques were used.

Social Characteristics of Students

Of the sample as a whole, one-half of the schools reported that none of their students were born outside of Canada. However, differences between ethnic groups were evident. Italians, Greek, and Chinese schools reported the largest number of foreign-born students. Schools of the ethnic groups in Edmonton were more likely than those of ethnic groups in Toronto or Vancouver to report that none of their students were born in the country of origin of their ethnic group (68.2%, 46.5%, and 30.8%, respectively).

The ethnic groups from which over 60% of the students were reported to be first generation Canadians, i.e., children of foreign-born parents, were the Greeks, Hungarians, Germans, Italians, and Poles. As was expected, most of the Jewish schools indicated that the overwhelming majority of their students were second, third, or fourth generation Canadian.

Regarding the social class background of students, about 35% were from families reported to be unskilled or semi-skilled, 39% clerical, sales and minor professionals, and 25% professionals or higher business executives. German, Italian, Greek, and Hungarian students were more likely to be from working class

backgrounds whereas nearly 65% of Jewish students were reported as coming from middle class backgrounds. The Ukrainian schools appeared to attract students whose parents were from a wide range of occupational backgrounds.

For students, enrolment in ethnic schools meant carrying an additional academic burden. Over two-thirds of the teachers reported that their students complained about having to attend supplementary language schools. This was highest in Chinese and Polish schools where all the teachers indicated that their students frequently expressed unhappiness in this regard. The fewest complaints were reported by the Greek and Ukrainian teachers. More specifically, students expressed concern to their teachers about losing their otherwise free evenings and Saturdays and that by attending a supplementary language school, they were given an extra work-load.

Social and Attitudinal Characteristics of Staff

Teaching and administrative personnel of ethnic schools have highly interesting characteristics. With reference to citizenship, 75% of the teachers were Canadian citizens. For the various ethnic groups specifically, a low of 22.2% of the Greek teachers reported Canadian citizenship compared to a high of 96.6% for the Ukrainians. All other groups reported 50% or more Canadian citizenship among teachers. Edmonton reported the largest number of Canadian citizens (84.2%) compared to 69.8% for Toronto and 71.4% for Vancouver.

However, most of the teachers, 64.3%, were born outside Canada. All Chinese, Italian, and Polish teachers in the sample reported non-Canadian birth. This was least true for Jewish teachers (4.2%). Nearly 80% of Jewish teachers reported fifth generation Canadian origin.

Regarding teachers' educational backgrounds, the average number of years of formal education was 14.8. The most highly educated group of teachers were the Jews with an average of 16.4 years followed closely by Italians with 16 years and Ukrainians with 15.1 years, compared to a low for Chinese of 12.3 years and Germans with 12.7 years of formal education. Of the total sample, 35.7% had one or more university degrees and 8.1% had less than the completion of high school. Of Hungarian teachers, 16.7% had less than the completion of high school compared to 17.3% for Germans and 12.5% for Ukrainians. Of all teachers, only 26.8% had attended teacher training institutions. In summary, although teachers were well educated, few had been trained specifically as classroom teachers.

The educational profile of principals looks very similar to that of teachers, with one notable exception. They are slightly more educated than teachers, but not unlike the teachers, few had received formal teacher training.

Teachers and principals came from a variety of occupations. Only 46.5% of the teachers held other full-time or part-time jobs, three-quarters of these being in business, administration, or at higher executive levels. Over one-quarter were housewives. As for the principals, all were employed full-time elsewhere and over three-quarters came from business, administration, or held higher executive positions.

In terms of the perceived goals of their schools, both principals and teachers felt that the prime purpose was to provide basic knowledge of the ethnic language.

The schools' second most important function was seen to be the maintenance of ethnic customs and traditions. While provision of knowledge of the basic language was seen as being particularly important by the Greek and Polish groups, both Chinese and Jewish teachers and principals were most likely to cite the maintenance of customs and traditions as the schools' most important role. However, it is interesting to note that even if the public schools taught in their ethnic language, 62.5% of the principals and 58% of the teachers thought that ethnic language schools would still be required. This feeling was strongest for Hungarian, Jewish, and Ukrainian groups and weakest for Greeks, Italians, and Germans. In contrast to their counterparts in Edmonton and Toronto, the majority of Vancouver principals (85.7%) felt that their schools would not be required if the regular school system implemented a policy of teaching in the ethnic language. In Toronto, on the other hand, nearly three-quarters of the teachers felt that ethnic schools should still be maintained even if the local school boards introduced teaching in their ethnic language. Those who felt that ethnic language schools should continue under these conditions stated that ethnic schools were necessary to ensure *proper* language teaching, the maintenance of traditions and customs, and to ensure the teaching of religion.

The existence of ethnic schools represents in varying degrees a desire on the part of members of ethnic groups to preserve aspects of their culture and communities. Therefore, the involvement in the ethnic community and the commitment to ethnicity of ethnic school personnel and the implications that such an involvement or commitment might have for the functioning and continuity of such schools in Canada must also be examined.

The data presented here clearly demonstrate that the majority of both teachers and principals actively participate in ethnic activities and associational life besides the ethnic language schools (approximately 80%). For all groups, the principals are more involved in ethnic organizations than are teachers. As to types of organizations, the most commonly reported were cultural, educational, and religious. Similarly, principals and teachers are heavy consumers of ethnic media. They are aware of what exists and support the media through active participation. The findings on the use of ethnic media by the respondents suggest that, generally speaking, the ethnic school teachers and principals have a strong sense of their ethnicity and, perhaps, represent the "activists" among their respective ethnic communities.

Regarding the federal government's policy of multiculturalism, 92.7% of the principals and 64.3% of the teachers had heard of the policy and for both groups, an overwhelming majority were in agreement with it. The main reason given for supporting the policy was that it would help maintain distinct ethnic identities. About 35% of the respondents felt that in addition it would strengthen Canadian unity.

Summary and Discussion

Ethnic schools have been in existence in Canada for a long period of time. For most groups, schools represent a high priority, second only to their churches. Religious institutions have played a major role in the formation of schools, the

provision of space for these operations, the actual financial support, and the recruitment of teaching and supervisory personnel. However, there seems to be a trend toward the use of non-church facilities namely public or separate school facilities.

The size of student enrolment varies greatly between ethnic groups. However, for most groups the number of students enrolled has remained fairly stable over the past few years. This appears to indicate that these schools might have reached a plateau in their ability to attract more students from their respective ethnic communities. This has happened despite the resurgence of interest in the maintenance of ethnic identity and political activism related to it in the past decade in Canada. One, however, could argue that the failure of these schools to increase their enrolments significantly is due to inadequacies in institutional facilities. However, the findings in this study indicate that facilities, although grossly inadequate, were not intolerably poor and, therefore, would not seem to have an adverse effect on teacher morale or commitment. Secondly, such inadequacies are more likely to influence the effectiveness of teaching in these schools rather than their ability to attract students per se.

Although it can not be said with absoluate certainty, it appears that ethnic school attendance is not a predominantly upper or middle class phenomenon. However, the appeal remains restricted to only certain segments of the populations of each ethnic group. Thus, while it can not be clearly determined whether these schools serve a particular class-based clientele, in the case of their teaching and administrative personnel it is evident that a vast majority of them come from the middle and upper occupational strata. In addition, it is significant that school personnel are also the activists within their own communities. It can be tentatively concluded from these findings that the critical support for organizing and operating these schools comes from this relatively small segment of each ethnic group, the generalized support of church and church-related organizations notwithstanding.

It was found most frequently that students are children of foreign born parents, with the exception of Jewish and Ukrainian students who are generally second, third, or fourth generation Canadian. Italian, Greek, and Chinese schools reported the largest numbers of foreign born parents. In other words, most students from the groups were first generation Canadian. Even more important is the fact that an overwhelming number of administrative and teaching personnel were of foreign birth. The fact that these schools recruited their teachers and students so heavily from these two groups (foreign born and first generation) would suggest that the ability to maintain their present strength is highly dependent on a steady and continuing flow of new immigrants into the country. In light of this analysis, then, the Italians with a high rate of immigration can be somewhat more optimistic about the continuing adequate supply of teachers and students. The only two obvious exceptions to this statement are the Jews and Ukrainians.

Ethnic schools in Canada provide an alternative to the homogenizing influence of the public schools. While the latter are used as a vehicle of assimilation and integration for children into the mainstream of society, the former serve the

purpose of socializing the child into an awareness of and commitment to the ethnic language, cultural tradition, and history of the specific group. If Canada is to maintain her policy of multiculturalism and to use it to encourage and ensure cultural pluralism, then it appears that one effective institution to promote the realization of this objective may well be the ethnic school and its further development should be supported by public funds.

It is no longer justifiable to view ethnic schools as devoted merely to the teaching of ethnic languages or some isolated aspects of ethnicity which is no longer "alive." This study suggests that it would be highly fruitful to view the schools as representing potent milieus for the development and inculcation of ethnic identity in their young charges, the training of highly self-conscious future ethnic leaders, the training and production of ethnic elites at the community and, perhaps, national levels, and the drawing together of community members by galvanizing them through the highly symbolic activities of the ethnic school. Because the ethnic school, as we have portrayed it, brings together the particularities of the ethnic life and culture as experienced in the family, community, and educational setting, this institution might serve as an excellent means of teaching the ethnic language despite its inability to provide the latest technology for such instruction. Within the expanded conception of the ethnic school offered here, it is suggested that the following aspects of these institutions should serve as fruitful avenues for further research:

(a) Ethnic schools as agencies of ethnic socialization, specifically in the development of ethnic identity.

(b) A comprehensive survey of student populations of these schools focusing on who goes to these schools: for example, what percentage of the relevant age group of each ethnic group is represented by the students in these schools? In addition, study might be made of the students' perceptions of the school and their developing orientations towards ethnicity, the ethnic community, and cultural pluralism.

(c) A thorough-going analysis of the schools' curricula focusing on the explicit as well as implicit or underlying ideological positions and orientations which are communicated. This might be essentially an analysis of the hidden curriculum.

(d) The effectiveness of these schools in teaching ethnic languages. To what extent can the cultural climate of the schools discussed in this paper compensate for (i) the lack of instructional technology to be found in modern language laboratories and (ii) the virtual lack of pedagogical training in the educational background of their teaching staffs?

Notes

1. Total exceeds 100% due to rounding error.
2. The Definition of Ethnicity used here is identical to the census (1970) definition, i.e., country of birth of nearest male ancestor before coming to this continent.
3. It should be noted that the number of schools that responded would have been higher than 78 had it not been for the fact that for some ethnic groups, especially the Italians in Toronto and Vancouver, the questionnaire was completed by one person in each city on behalf of all the Italian schools operating there.

4. All of the ethnic schools identified in Edmonton and Vancouver and a sample of schools contacted in Phase One in Toronto were included. In each of the selected schools, the director and a sample of two teachers comprised the sampling unit for that school. However, it should be noted that the number of selected respondents by city and ethnic group is not always a multiple of three in that three respondents were to be selected from each school, because of the modified sampling allocation in Toronto and because all schools did not have the complement of two teachers to complete the desired sampling unit.

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PERSPECTIVES

Twenty-five Years of Research in Education: *The Alberta Journal of Educational Research* 1955 to 1979

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To search more diligently and to be driven on by curiosity is commonly the lot of one who chooses to become a researcher. Prolonged contemplation of a problem and the periods when progress seems lacking or painfully slow are frequently prerequisites to that splendid moment of perception when something is seen to be true about the world. But the private moment belonging to the researcher alone is not sufficient. It must be shared, made public, opened up to the tests of others' perceptions and ideas, too. It is for this reason that the publication of the results of research is so vital—publication represents a formal invitation to criticism. And for a quarter of a century, *The Alberta Journal of Educational Research* has been one of the few publications in Canada which has afforded an opportunity for researchers in education to put forward the results of their efforts for careful scrutiny and for practical application.

It is intriguing to contemplate the interplay of events and ideas shaping the nature and direction of research activities in education primarily, though not exclusively, in the English-speaking world. The articles selected for publication in

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AJER over its twenty-five year history provide a rather unique opportunity to do just that. While its editorial policies have developed and changed somewhat, the overall goal of presenting ideas that represent the best in all aspects of educational research has not. Accordingly, one can find in its pages examples of developmental trends in educational research that transcend international boundaries while at the same time demonstrating the ways such trends influence research being done in Canada. More specifically, *AJER* has reflected the research activity to be found in a university committed to fostering excellence in the study of education (Swift, 1970). At the outset of this retrospective look at the *Journal*, it should be acknowledged that the University of Alberta has demonstrated the seriousness of that commitment by its longstanding support of this publication. The *Journal* articles, seen as a whole, provide a mirror image of the ebb and flow of interests and emphases, the growth and decline of particular ideas, and the effects of change in society at large on the questions and problems addressed by researchers in education.

Educational research in North America generally has changed in style and scope within the context of demographic and other social changes surrounding the whole of the academic research enterprise. In Canada, we cannot set aside the extensive influence of public policies and government resource allocations for educational research in the United States which uninhibited communication of ideas and the extensive exchange of researchers has induced. One can argue that the pursuit of knowledge knows no bounds, but at the same time it would be foolish to discount the effects of the larger environment on the quality and quantity of research effort. With this presupposition in mind, an examination of the articles which have appeared in *AJER* suggests that there are at least three main sources of influence. Besides the national and international events, policies, public attitudes—the general milieu in which researchers do research in education—there are the ways in which researchers interact with one another and with the professional and public monitoring of their activities. More specifically, the *AJER* articles may be viewed as a fairly faithful reflection of the ways in which concepts about research in education have developed over a particular period: notions about what counts for valid knowledge, the appropriateness of various techniques and technologies, the interplay between the world of ideas in the social sciences and humanities and in education, the dissemination of research findings, and the effects, if any, of their application on practice.

The ecology of educational research in Canada

An ecological view of educational research by definition places emphasis on development in relation to total environment. Research in education, like research in the social sciences generally, grew rapidly following the Second World War. While social scientists claimed that their research would provide an understanding of humankind in general, which in turn would lead to the formulation of solutions to social problems, researchers in education focused on greater understanding of people in schools in order to formulate solutions to educational problems. Educational researchers in universities shared with their counterparts the conviction that analyses of processes and mechanisms would provide the knowledge required to resolve problems and to invent better policies and

practices. Governments viewed education as an economic investment by society that would produce better individuals, intellectually and personally, who in turn would be better citizens. Funding for research was increased both to help resolve social problems through education and to contribute to the quality of preparation for productive work and thought in Canadian society. Thus it was that educational research activity changed dramatically by the mid 1950's. It was no longer seen to be merely an activity to be carried out by professors of education during time not devoted to teaching: instead it was thought to be an instrument to be used to cope with the present and to influence the future.

At the same time, international events took place, heightening awareness of philosophical and scientific thought in education elsewhere, particularly in the Soviet Union. Reports and studies of differences in theories and practices and their resulting effects became sources of ideas for possible improvements in Canadian education. Later, when radical changes in American equity laws were so painfully being born, the course of educational research began to take on new directions. A preoccupation with ways to predict group achievement and to standardize treatments of groups began to give ground to a search for ways to provide equality of opportunity through education which would offset the effects of poverty and discrimination and would take into account the characteristics of individuals.

Thus one finds in the earlier volumes of *AJER* an article by Sparby (1959) addressing the relationship of research in education to the social sciences and the value of using an interdisciplinary approach, succeeded by a series of reports of research studies which depended heavily on social role theory to examine the behaviours of students, teachers, and administrators. The Greenfield and Andrews (1961) and Keeler and Andrews (1963) reports are typical of those studies undertaken with the specific intent of conducting educational research in order to improve the quality of schooling. The focus at the time was on the effectiveness of actors in fulfilling designated roles in educational organizations, but five years later, one of those authors (Greenfield, 1968) reassessed the use of the concept of role behaviour in educational theory and research and suggested new directions for future research. Or one can find, beginning with MacDonald (1959) a continuing interest in Soviet education: Stewin and others (1969, 1974) investigated the Soviet theory of set; Smith (1973) looked at Soviet studies in language acquisition; and Gulutsan (1967) was concerned with the relationship between the ideas of Piaget and Soviet psychologists. Similarly, a change over time appears in articles about tests and testing. In 1956, Clarke and Dunlop wrote about "Tests in Measurement and Evaluation" and studies on the use of standardized tests of achievement such as Sangster's (1956) gave way eventually to research growing out of the criticism of testing related to such factors as the effects of culture (Safran, 1963), anxiety (Frost, 1965), creativity (Cropley, 1967), and divergent thinking (Vernon, 1972). Gradually the ideas of Jean Piaget became more and more prominent in the studies appearing in *AJER*: in 1960, Crawford reported a study of Piaget's thought in relation to teaching school mathematics; in 1967, Côté's study of Piaget's formulations on perception and intelligence appeared; by 1973, O'Bryan and MacArthur had made an analysis of Piaget's notion of reversibility and Lefrançois had investigated Piaget's model of equilibrium through adaptation.

It can of course be argued that these themes appear in the pages of *AJER* largely because they reflect the choices of the referees and the editors of the day. To some extent that may be the case, but that is too simple an explanation. Final selections by editors are made from a pool of articles available, and that pool is the result of the research activity of people who have pursued ideas or who may have been supported in their pursuit of those ideas for a variety of reasons. It is not surprising that some of the research done in education and some of the motivations of researchers in education are related to social and political factors much larger than the educational enterprise itself. Sources of funding and demands for research in education which come from outside of the universities illustrate this point. The effects of such interventions are most apparent in the work in educational administration associated with the University of Alberta.

In the preface to Swift's (1970) volume entitled *Educational Administration in Canada*, Stewart describes the people who were involved in the process of establishing a special centre for studies in school administration at the University of Alberta. He cites the following as influential factors: an expressed concern among members of the Canadian Education Association in the first decade after the War that more facilities for post-graduate study in education be made available in this country; a disposition among Deans of Education in Canada to cooperate to that end and their attitude of good will toward the possibility of development at the University of Alberta under the leadership of H. T. Coutts, Dean of the Faculty of Education; the support of the Alberta Minister of Education, the University Board of Governors, the President of the CEA (in office during 1954-55); and Dr. Arthur Reeves, the person "who brought the scheme to fruition" by preparing and promoting the proposal for the CEA-Kellogg Project (pp. *iii*, *iv*). The W. K. Kellogg Foundation offered support for an action program

> which would have an immediate and beneficial effect on the educational process and, perhaps more important, which would serve to set in motion programs which, having demonstrated usefulness, would be taken over, and be financially supported on a continuing basis by Canadian school authorities and educational institutions. (pp. 13-14)

Subsequently, as Swift suggested, a program of research was undertaken which was unlike the kind of research "as that term was generally understood." Examples of some of the studies completed in large part because of the mandate given to the Department of Educational Administration at the University of Alberta, funded by the Kellogg Foundation initially, and later by the University's own resources, are to be found throughout the pages of *AJER*. The articles provide some evidence that the concerns of practitioners, as voiced by the Canadian Education Association, and the concerns of informed members of the larger public, as represented by the Kellogg Foundation, had an effect on the course of research in education. In this case the interdependence among groups was overtly welcomed by Dean Coutts and the Faculty of Education, and the outcomes have been documented in considerable detail by Swift. One suspects that in other areas of educational research, "outside" influences have not been recognized as clearly but are nevertheless no less active in shaping educational research efforts.

The influence of the scholarly community

Another of the factors shaping the nature and direction of educational research is almost certainly the type of program designed to prepare researchers (Willson,

1980). The majority of the programs offered in North America twenty-five years ago were embedded in the requirements and traditions of university faculties of graduate studies. The practice continues to a great extent today. The overall result is that the ideas of the scholar-models in universities who supervise theses and who are members of thesis committees have a long-term influence on the types of problems addressed by researchers in education and on the means of exploring them. With the growth of graduate programs in the faculties of education in Canada, more professors and an increasing number of graduate students carried on this academic tradition and, quite naturally, shared beliefs and assumptions about the research enterprise. It also seems reasonable to suppose that a centre like the Division of Educational Research at the University of Alberta, in the process of facilitating research activity, has been instrumental in reinforcing ideas and developing standards of excellence in educational research.

In some cases the traditions are longstanding and deeply rooted, such as in the field of testing and test development, and researchers have consistently addressed certain basic issues over time. In 1956, *AJER* published Powell's evaluation of the "Detroit Beginning First-Grade I.Q. Test" in terms of its validity, reliability, and standardization. In 1974, an article by Randhawa, Hunt and Rawlyk reported a study which included, among other things, an examination of the reliability and validity of the "The Canadian Cognitive Abilities Test." These and other studies focusing on the technical aspects of perfecting tools-to-be-used share certain characteristics handed down through a long line of researchers. Walker's article in the 1959 volume, assessing the influence of Binet after half a century had elapsed, was possible partly because certain presuppositions about the nature of learning and testing remained relatively constant among groups of researchers. This is not to imply that the field remained static, but that there had been a certain kind of continuity. Changes were introduced when some researchers became concerned with studying the effects of tests-in-use (Frost, 1965), or when the need for tests based on different kinds of assumptions about the nature of learning and thinking came to be held by the scholarly community (Hobbs, 1975). But, overall, it can be said that those scholars in education who see themselves primarily as researchers concerned about the application of the methods of social science research to the problems of education have actively sought to improve the quality of their research and to strengthen programs for training researchers.

What may be seen to apply to the influence of the whole community of scholars in education nationally and internationally may also be seen to affect the research activities of groups of scholars who share an interest in a particular subject area or, on a small scale, among scholars located in a single institution. When fairly stable associations are maintained over the years, expectations for research are built up which are productive and influential for students and colleagues alike. One sizeable group of articles published by *AJER* seems to illustrate this phenomenon. Beginning in 1956 and continuing regularly throughout the pages of *AJER*, there are reports of studies on school mathematics programs, the preparation of teachers of mathematics, and the performance of students doing various types of mathematics tasks. The researchers whose names are associated with some of these studies seem to indicate the effects of

longstanding associations among researchers in mathematics education: Nelson and Worth, 1960; Nelson, 1964; Nelson and Towler, 1967; Liedtke and Nelson, 1968; Bana and Nelson, 1977; Bourgeois and Nelson, 1977; Nelson and Kieren, 1977; and Kieren and Nelson, 1978.

Another facet of this phenomenon of commonality in research interests and the effects of leadership on research directions seems to be apparent in the body of work published by *AJER* related to Soviet scholarship. The heritage of western Canada in particular has been enriched by its Eastern European roots and by those Canadian scholars who have maintained communications with European scholars, specifically with their Soviet counterparts. At the University of Alberta, Gulutsan (1967) was a founding member of the interdisciplinary Centre for Eastern European Studies and it is noticeable that several of his colleagues in the Department of Educational Psychology, coming themselves from a variety of research traditions, produced a number of studies analyzing various aspects of education in the Soviet Union. MacDonald (1960) wrote "Explanation and the Neo-Marxist Theory of Mental Testing" at a time when the race to explore space was reaching its competitive heights. A decade later, Hritzuk and Janzen (1970) studied the concept of set held by two Soviet psychologists, Luchin and Uznadze, followed by Lefrançois' (1973) account of behaviour theory, and by Cowper and Stewin's (1974) experimental critique of Soviet set theory. Other psychologists, like McLeish (1974), examined certain features of Soviet education from a social system perspective or, like Stewin and Martin (1974), from a developmental perspective. It would be dangerous to ascribe disproportionate effects to the influence of scholars on one another, but it does seem reasonable to identify personal interests and group contributions among those factors which, for whatever sets of complex reasons, have led researchers to follow one course of inquiry rather than another.

This same factor seems to be present in part in the process of change which can be seen in the research on teaching and teacher preparation during the past twenty-five years. At a time of teacher shortage in North America, Clarke and Pilkington (1955) and Aikenhead (1956) investigated the reasons why students and practising teachers were not choosing to enter or to remain in the profession. Their studies used questionnaires designed to assess the opinions and attitudes held by teachers and others. In the next decade the focus of research shifted to teacher performance in the classroom and attempted to identify the kinds of knowledge and behaviours associated with successful teaching. So, for example, Eddy (1963) studied "Teacher Characteristics and Social Studies Achievement" and McBride (1964) investigated student assessments of teacher performance based on the assumption that when students are generally satisfied with their experiences in a classroom they will derive greater benefit from the teaching and the learning experiences offered to them. By the mid-1970's, the notion of the effect of teachers' attitudes towards pupils and teacher-held expectations for pupil performance became predominant in the research. Lavoie and Adams (1974) conducted a field study to ascertain the ways teacher expectations may be affected by children's physical attributes, sex, and conduct. Hoxter (1974) investigated teacher attitudes to find out how these affect students who come from cultures other than the teacher's own. Miller (1974) studied changes in student teacher

attitudes towards children and schooling, reflecting the changes in values held by students throughout the period of preservice professional education. Recent research has continued the emphasis on the internal rather than the external factors related to success in teaching. Where the work of Clarke and Pilkington (1955) emphasized the effects of public opinion and of home and school influences on prospective teachers, Noll, Willower and Barnette (1977) directed attention to the teacher as a person by using measures of "self-actualization" and measures of attitudes in terms of "pupil control ideology" to predict the nature of teaching behaviours, and Cheong and Wadden (1978) used measures of teacher attitudes to predict effects on pupil self-concept.

If my initial presupposition holds true, that *AJER* can be seen as a sort of weathercock for directions in the developments taking place in educational research in North America, then the articles to be found in its twenty-five volumes to date reveal something of the state of the art in Canadian research on teaching and teacher education. Although one would expect to find many educational researchers making the investigation of teaching and teacher preparation programs central to their work, especially since so many are conducting their studies in the context of professional faculties, this does not seem to be the case. The studies appear to be so diverse that it is difficult to find ways in which research findings could contribute over time to the building of an adequate body of knowledge. Some possible explanations for this state of affairs seem to emerge from an overall examination of the reports of research appearing in *AJER*. One observes that there is an almost exclusive association of researchers within a discipline or a field of study but little association across disciplines. While inquiries by researchers in educational philosophy, sociology, psychology, and history or administration and curriculum are ongoing, few of the studies have been undertaken in an attempt to work across discipline lines or to synthesize findings in order to discover general principles or theories. Work like Lindstedt's (1960) study on "Teacher Qualifications and Grade IX Mathematics" identified certain features characteristic of preservice teacher education and subsequent teaching experience in schools that can affect the levels of competence attained by teachers of mathematics. Greenfield and Andrews (1961) identified certain types of teacher behaviours that can be associated with pupil achievement on school examinations. There seems to be little evidence of concern on the part of the community of educational researchers to take the findings of such studies consciously into account when planning subsequent investigations. Even though a researcher like Poole (1975) set out to find ways to improve teacher education programs by identifying component skills of teaching and by deliberately training people to generate ideas on the assumption that this would make for more creative teaching in the classroom, the study was conducted on a relatively small scale without benefit of cross-consultation with other researchers such as I have envisaged. Of course, one might argue that a great deal of the research conducted in education implies the need to know more about teaching and teacher preparation and thus contributes to our knowledge indirectly. But, historically, the resolution of difficult problems in any field of inquiry has not come about by circumventing them. Obviously, different researchers will use different approaches in searching for new knowledge and may even be in sharp disagreement with one another in their views of the best approaches to take, but they share in a common

pursuit and the influence of the community of scholars makes itself felt. In the community of scholars in education there appears to be lacking a continuing, persistent commitment to the kind of research that boldly identifies itself with the intent to pursue new ideas, to invent new practices, to resolve longstanding problems which would lead to the improvement of university and field programs in teacher education.

The traditions of the scholarly community can be tremendously productive but there is a danger that those same traditions will become paternalistic and conformist in their effects on research. The apprentice researcher who is introduced to a particular mode of conceptualizing problems-to-be-solved in education may find it difficult to accept or to explore other ways of thinking and to use alternative modes and techniques of investigation. The myth of "the scientific method" has influenced research in education in North America as it has in other fields of inquiry and has played a predominant role in the research in education reported in *AJER*.

The extension of knowledge in education through research

To this point the *AJER* has been viewed partly as a product of its time and place and partly as an illustration of the several ways the community of scholars in education shapes the work that is ongoing in the field of inquiry. Undergirding both perspectives are certain basic notions about what educational research is and what counts for valid knowledge in education. Is research in education basic or applied and, if it is thought to be applied research, does that mean it is applicable to further academic study or to practice, or to both? Baxter (1980) argues that research in the applied sciences is "basic in the sense that it is concerned with knowledge and methods that might be applicable in a number of different situations" and thus it enjoys a kind of strength and versatility which would not be possible if it were highly specific (p. 3). Others would draw the line more clearly between basic and applied research. Mattersich (1980) distinguishes basic from applied research by emphasizing its intents: when research is directed toward increasing knowledge it can be termed basic; when it is directed toward practical applications of knowledge, means-end relationships, or the resolution of specific problems, it is applied research. Using the Mattersich definitions, it can be seen that *AJER* has interpreted its mission to publish research in education broadly enough to include studies that lie within each of the two categories of intentionality. It can also be seen that the greater number of studies lies in the application of knowledge category.

A selection of 25 of the studies on reading reported from 1955 to the present illustrates this weighting. The earlier studies such as the one by Carmichael and Rees (1955) surveyed reading achievement levels attained by Alberta pupils in order to discover whether or not they were meeting standards attained elsewhere. The results of comparisons like these were intended for use by practitioners who, presumably, would take them into account when planning curriculum and instruction in reading. An experimental study of Koziey and Brauer (1972) described methods of teaching reading which demonstrably improved reading performance. These and other studies in this particular group of articles were clearly intended to assist practitioners with the resolution of problems encountered by teachers in the teaching of reading or by pupils in learning how to

read. By comparison there are relatively few articles reporting research deliberately devised to discover new knowledge about reading and language phenomena. Stewin and Anderson (1974) tested the power of the concept of cognitive complexity in information processing; Evanechko, Armstrong and McFetridge (1974) explored the semantic organization underlying verbal behaviour; Cummins and Gulutsan (1974) focused on cognitive growth; and Smith (1973) searched for understanding in terms of language acquisition concepts.

Whether *AJER* articles report findings from applied or from basic research studies, one is struck by the consistent emphasis placed on matters of method and technique in the majority of them. Perhaps this is not too surprising in view of the metamorphosis which has taken place in social science research in the post-war years. The earlier volumes of *AJER* contain reports of studies that are predominantly descriptive presentations. These are succeeded by reports of studies which used analytical-empirical approaches in the attempt to adapt scientific methods to education problem-solving. From the mid-1960's on, there is concern for more rigour, and for more emphasis on the development of theories and models (Holdaway & MacIver, 1966), methodology (Maguire, 1969), and new techniques (Hunka, 1971). It was during this period, according to Gephart (1980), that researchers in education became preoccupied with five major types of problems in the conduct of research: problems of analysis, treatment, representativeness, measurement, and logic, which even yet have not been satisfactorily resolved. One detects in a few of the articles published after 1970 the adoption of a different philosophy of science, one which takes into account the researcher as person, an integral part of the research enterprise. Nevertheless, the research methods and techniques employed most frequently in the articles appearing in *AJER* are those which were developed originally for studies in agriculture, biology, or psychology.[1] It is exceptional to find reports of studies making use of interview, historical, case study, content analysis, opinion poll, or survey sampling. Of fifty-four articles published in *AJER* from 1955-1979 which designate teachers or teaching as a research focus, only six reported the use of such techniques as economic prediction, field study, Delphi study, case study, or interview procedures.

Educational research has come to be almost exclusively associated in the minds of some people with the use of systematic descriptions and measurement, observation, and controlled experimentation, or the creation of instruments to test knowledge through verification, confirmation, or falsification. Proportionately larger numbers of educational researchers in North America have been committed to the use of this particular methodology, resulting, one would expect, in a large pool of articles from which to select those for publication. Thus, while the articles in *AJER* represent the prevailing trends in educational research for the past twenty-five years, at the same time they provide a silent commentary on the comparatively limited number of research studies conducted using other forms of inquiry. This makes for an imbalance that skews the image of what counts for research in education. Eastwood's (1975) comment appearing in Volume XXI seems particularly pertinent in this regard:

> No one would wish to suggest or be accused of suggesting that a technological research pattern is an adequate or appropriate model for educational research.... Human learning and human development are considerably more complex processes

> than the development of a new machine. But both are practical activities dependent upon the application and utilization of basic research and both necessitate research in ways of applying. (p. 74)

The effects of publishing educational research

The experience of delving into twenty-five volumes of *AJER* has forcibly reminded me of the diversity of questions confronting researchers in education. Some are conceptual, others are methodological, and still others have to do with the relationship between research and practice. Clearly, the raising of such questions as a stimulus for further thought and research activity is one of the primary functions of the *Journal* and one it has performed well for its readers over the years. It is consistent with the statement of purpose set out in the masthead: *AJER* is intended to be

> A quarterly journal devoted to the dissemination, criticism, interpretation and encouragement of all forms of systematic enquiry into education and fields related to or associated with education.

My overview has indicated a few of the ways *AJER* has so admirably fulfilled these goals. It has also served to whet my appetite for more information about what the field of educational research was like at the time each of the twenty-five volumes was in process of preparation for publication. Editors of major research journals such as *AJER* read the assessments made by knowledgeable reviewers of hundreds of manuscripts; they make informed decisions about selections; they interact with authors representing research in disciplines using different forms of inquiry. I think it would be valuable to know more about the issues in educational research that consumed the interests of authors and editors of the day. I can only speculate a little about the effect that the inclusion of editorial statements might have had. If editorials serve to highlight issues important to the mission of a given publication, might the editors of *AJER* have been able to communicate some sense of the issues and events and the world of ideas in educational research? Might they have sharpened insights or created linkages that could have intensified or multiplied the effects of ongoing research? Would such editorials have helped us to appreciate their perceptions, so well described by Hodysh (1971) as the compound of needs, values, hopes, past experience, and culture used to organize and to direct interpretations of reality?

I applaud the invitation first extended in Volume 24 to provide opportunities for scholars to write critically about the general conduct of research in education (Hodysh, 1978). Essay reviews, book reviews, and expressions of points of view in "Perspectives" pieces are being included in a deliberate effort to present the questions being raised in the larger world of research, the debates about premises, the shifts in what is taken for granted in educational research. Even so, there are problems in publishing matters of current concern; it takes time for the cycle of the research process to come round to the publication stage. This publication time-lag continues be a dilemma in disseminating ideas and research results because of the benefits that accrue from criticism and revision prior to publication. The provision for alternative types of articles should encourage those who would challenge our existing ways of thinking and those who can generate excitement about the search for knowledge.

But having said these things, I must conclude by acknowledging the far-reaching positive effects of the research articles published by *AJER*. There is very substantial evidence in articles appearing over successive years demonstrating that the conduct of research in education has been facilitated by publication of work leading to the refinement and improvement of measures and methods. There is also evidence along the lines Suppes (1978) has identified for North America generally, that knowledge derived from basic research has had an effect on practice in education: policy decisions about the content and organization of curricula in science and mathematics have been influenced by Piaget's notions of conservation; certain expectations about students and teachers have been modified in light of findings in social psychology; and work in the social sciences and humanities has changed some concepts about the training of administrators, to take just a few examples. *AJER* came into being at a time when the vision for the development of educational research in Canada was fresh and exciting. It is impossible to assess precisely the extent to which the *Journal* helped to translate that vision into reality, or to gauge exactly the extent to which the vision itself shaped the development of *AJER*. Traces of both of these factors are to be found throughout the twenty-five volumes of the *Journal*. It is a singularly fine record of many of the achievements and of some of the struggles in educational research in Canada and abroad.

And what of the next twenty-five years for *AJER*? At a time when large numbers of publications in every field are in peril of disappearing, my hope is that *AJER* will continue to flourish. From its earliest beginnings to the present time, it has played an important role in the whole of the educational research enterprise in Canada. It may be that this role can be sharpened somewhat. The time seems propitious, with the appointment of the panel of widely representative Consulting Editors, for the *Journal* to assume responsibility for actively identifying gaps in knowledge and needed research in education. *AJER* might deliberately assume responsibility for bringing together a critical mass of knowledge from which the members of the teaching profession as well as scholars in education could draw applications. Or, perhaps, the *Journal* might consciously assume a special responsibility for disseminating the results of research studies that will further, in the broadest sense, our understanding of teaching and schooling and the education of practitioners.

The resilience demonstrated by *AJER* in its first twenty-five years of publication will surely stand it in good stead now. It has been characterized by a sense of purpose and by those qualities of vitality and perseverance which are needed to sustain it through periods of change. These are qualities that will enable *AJER* to continue to make important contributions to the study and practice of education in Canada in the years ahead.

Notes

1. For a useful comparison, see V. L. Willson, Research Techniques in *AERJ* articles: 1969-1978. *Educational Researcher*, 1980, 9(6), 5-10.

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RESEARCH NOTES

A NOTE ON PUPIL EVALUATION IN THE SOVIET UNION

Success in North American educational programs is frequently described in terms of the differences (hopefully significant at the .01 level and in the anticipated directions) between pre- and posttest ratings of student ability on selected measures. The administration of standardized tests has become, within the present century, an intrinsic activity of most classroom teachers, counselors, consultants, and other specialists employed by school systems and is the raison d'être of various professional groups and organizations concerned with the performance of this function. Although the merits of many assumptions and practices associated with pupil evaluation are currently being challenged, assessments of both academic achievement and mental ability continue as an established tradition within most school systems.

The rationale underlying our use of achievement tests in educational institutions is largely self-evident; the rationale relating to the use of psychological tests, however, requires some additional comments. Generally, justification for the use of these latter measures is based on the premise of providing a comprehensive picture of the student, thereby allowing the teacher, counselor/psychologist, or school administrator to devise a more individualized curriculum or program geared to the needs and levels of functioning of that person. In most instances pupil evaluation in our educational system is dualistic in nature, and we attempt to gauge student progress (academic achievement) in terms of individual capacity (mental ability).

This approach to pupil evaluation is, however, not universally employed, and the current controversies regarding the efficacy and equitability of our procedures suggest that a consideration of alternative systems may be appropriate at this time. Concepts and practices regarding differences in academic achievement in the Soviet Union, for example, are quite distinct from our own (Chauncey, 1959). Within the USSR, the only form of student evaluation permitted (except in exceptional and individual cases) is achievement testing, and the measures employed, even in this area, are substantially less standardized and controlled than are the batteries of examinations periodically administered to pupils in western schools. The rationale underlying the rejection of psychological tests in the USSR has been discussed elsewhere (Stewin, 1978) and will not be dealt with

here; instead, the purpose of the current paper is to present a summary of the evaluative procedures practised in the Soviet school system, followed by some comments regarding this approach in light of our current concerns surrounding student assessment.

Although the majority of children in the USSR attend a nursery (for six-month- to three-year-olds) or kindergarten (for three-year- to six-year-olds) program for at least one year, there seems to be little emphasis on academic readiness at this level and no formal evaluation of individual abilities (Jacoby, 1974). The program seems geared to the development of gross and fine motor skills (through play and games, dance, and artistic activities) and to the stimulation of group social skills. Students who are judged to exhibit exceptional aptitude for art or dance may be encouraged to develop these capacities through extra training, and student needs and progress may be discussed with parents on occasion, but no standardized evaluations and reports are completed.

Since the revision of 1964, Soviet schools offer ten years of formal instruction. The first three years are considered to be elementary school and the latter years are the equivalent of North American junior and senior high school programs. Eight years of education are deemed basic for each pupil and are therefore compulsory. Eligible students may then elect to continue their education for an additional two years and perhaps to apply for admission to a university or other specialized (technical, pedagogical, foreign language, medical, fine arts, music, military) institute; less successful students generally enter the work force at the end of the eight-year program.

Children in the Soviet Union begin compulsory school attendance in the term following their seventh birthday and "are judged according to a rigid grading system, beginning with the first week of the first grade" (Jacoby, 1974, p. 75). Overall progress is evaluated via oral participation in class, daily homework assignments, and periodic classroom examination. Throughout the USSR, grading is done on a five-point scale, three being the minimal passing grade. Grades are entered daily in each student's record book and must be reviewed and confirmed by parental signatures at the end of each school week (Bereday, 1960, pp. 178-179). Should a student receive more than one low mark in a week, his parents may be requested to discuss the child with school authorities and to supervise their child's homework more stringently. This "daily checking of the pupil's knowledge allows the teacher to form an objective opinion as to his level of academic achievement at the end of the school year" (Strezikozin, 1969, p. 152) and is thought to eliminate the need for more standardized or comprehensive examinations to be administered at the end of term, such as are common in western countries. End-of-year examinations are, however, administered in some areas of the Soviet Union (Ukraine, Georgia, Kazahkstan) at the discretion of local school authorities (op. cit., p. 153).

Student progress is evaluated in each subject area on the basis of teacher judgment, augmented as needed by examinations, and promotion decisions are reached. If a pupil is assigned a failing mark in more than two subjects he must repeat the grade, but if he fails fewer subjects, he may be allowed to attend summer school (at the secondary level) and his status is then reviewed.

Compulsory examinations are administered only at the end of each student's secondary examination, following either his eighth (incomplete) or tenth (complete) year of schooling. Eight-year program students may be tested in Russian language and mathematics and in the native language in non-Russian areas; examinations may be in both oral and written form. Students who have completed the ten-year (matriculation) program may also be examined in Russian literature, a foreign language, Russian and foreign history, physics, chemistry, geography, algebra, geometry, and/or social sciences. "The examination in Russian and mathematics is written. All other examinations are oral" (Kreusler, 1976, p. 46).

Written tests consist largely of essay and short-answer questions; however, Ryumshin (1976) has noted a substantial increase in the use of the multiple-choice format on recent biology examinations. The written examinations are centrally prepared and are made available to the schools only one or two days before they are to be administered. Tests are supervised and results are evaluated by local school authorities according to guidelines provided by a central committee.

The procedure concerning administration of the oral examinations is quite different. Several weeks before the examination date, pamphlets are circulated to students announcing the subjects on which oral questions will be based. Subject area teachers then formulate specific questions and place them on cards known as *Bilety*; there are generally three questions per card. (Sample questions may be found in Apanasewicz and Rosen, 1966, and in Kreusler, 1976, pp. 47-49.) Oral examinations are conducted by a panel consisting of the subject teacher, the subject teacher from a second school, and the school director (administrator). Pupils are called before the panel one at a time. Each student draws a card and is allowed approximately 15 minutes to formulate his responses to the questions printed on the card; he is then given 10 minutes to reply. His responses are evaluated by the panel and a grade is assigned. (For a more detailed account of oral examination procedures and a discussion of their strengths and weaknesses, the reader is directed to Gloriozov, 1974.)

Students who successfully complete (pass) all matriculation examinations are awarded a Certificate of Maturity, and students who perform exceptionally well are awarded medals. Pupils who receive marks of five in all tenth year subjects are presented with gold medals, and those who receive marks of five in matriculation subjects and four in other areas are presented with silver medals. Gold and silver medalists were, at one time, given preferential treatment with respect to admission to postsecondary institutions (Shumilin, 1962); however, Grant (1964) and Skurnik (1968) note that all students are now required to write entrance examinations when applying for further education.

In summary, students in the Soviet school system are evaluated on a daily basis in a variety of subject areas and are assigned ratings ranging from one to five. Grades are allocated by the teacher after considering the pupil's responses in the classroom, the adequacy of his homework assignments, and the knowledge displayed on periodic subject matter tests. This information is deemed sufficient for making promotion decisions in most instances, and standardized academic examinations are administered only to students completing their secondary

education. Final examinations in specific subjects may be written (supplied by a central education committee), oral (formulated by local subject matter teachers with guidance by the central committee), or both. Students who perform exceptionally well on these tests are recognized by the state through the presentation of medals.

In contrast to present practices in many countries, Soviet pupils are evaluated solely on the basis of academic achievement relative to the curriculum for their grade level and are not judged relative to their peers in terms of their own capacities. Differences in achievement are, in the absence of obvious physical or physical-mental handicaps, generally ascribed to individual interests (and consequent motivational levels) or to the quality of instruction provided rather than to differing aptitudes for learning. Little, if any, direct attention is given to other factors which may inhibit the learning process and little individualization of instructional approach, in consideration of the abilities or learning style of the student, is advocated for the regular classroom teacher.

Adherence to a unidimensional and rigid system of grading and the lack of standardization (or confirmation) of teacher evaluations regarding pupil competencies has created some difficulties for teachers and administrators within the Soviet school system; there has been some agitation in the press for a review of policy concerning testing (Schlesinger, 1964, 1967, 1972). As early as 1961 concern was being expressed that there should be a more objective determination of students' abilities and that these capacities should be identified early so that a better selection of students would be made by various institutions of higher education (De Witt, 1961). Soviet writers seldom specify the nature of the assessment procedures they are advocating, but a review of the literature (Stewin, 1978) suggests that reintroduction of some forms of both aptitude and standardized achievement measures seems plausible.

Given the current Soviet perspective, it seems unlikely that a major change in assessment practices will occur; however, the demands of technology may result in the introduction of some measures designed to identify the scientifically gifted individual. Also, governmental policy in regards to the needs of particular students for specialized programming or instruction on a compensatory basis has shown a shift in recent years, and some educational programs allowing the system to accommodate the exceptional learner have been introduced (Gallagher, 1974). This trend may result in the development and introduction of more comprehensive and, perhaps, more standardized assessment procedures than are currently employed in the USSR.

It is hoped that this brief survey of the evaluative procedures employed in Soviet schools and of the concerns expressed by educators in that setting has offered some insights to the reader familiar with western assessment procedures. The present controversy in North America regarding the equitability of our established testing programs and criticisms of our over-reliance on assessment data have caused some observers to advocate a severe restriction or even discontinuance of standardized testing within school systems. This suggestion would seem, in consideration of the Soviet experience, somewhat extreme.

Perhaps the conclusion to be reached upon reviewing the assessment practices in both situations would be to substantiate that standardized measures should be employed judiciously to augment, rather than to replace, sound teacher judgment. Reliance on any one source of information regarding pupil progress, whether obtained via objective measurement or by classroom oservation, is insufficient to permit educational staff to monitor adequately existing programs and to provide learning experiences appropriate to the needs of individual students. Only a careful compilation of both quantitative and qualitative knowledge seems sufficient to satisfy these rigorous requirements, foremost in the minds of concerned educators of all political persuasions.

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BOOK REVIEWS

CURRICULUM INTEGRATION AND LIFELONG EDUCATION. *By James B. Ingram.* Volume 6 in *Advances in Lifelong Education Series.* Hamburg: Pergamon Press and the UNESCO Institute for Education, 1979.

Volume 6 in the series *Advances in Lifelong Education* is a credit to the painstaking concern for detail and explanation of the author, James B. Ingram.

The thoroughly rational and sequential ordering of the text is reinforced by its strong academic content on the nuances of curriculum integration. Ingram begins with the qualification that the text is primarily concerned with the concept of curriculum integration as a necessary precursor to, and component of, integrated and coordinated lifelong education.

The first and final chapters specifically relate curriculum integration to lifelong education, while the five intervening chapters deal with particular aspects of the concept of integration: chapter 2, "The Nature and Variety of Curriculum Integration"; chapter 3, "Functions of Integration"; chapter 4, "Teaching Styles and Integrated Approaches"; chapter 5, "Integration and School Organization"; and chapter 6, "Problems and Prospects." The first chapter, "Lifelong Education and Curriculum Integration," appropriately sets the scene for the subsequent analysis, in discussing the perceived relationship between the two concepts, followed by separate explanations of what lifelong education is perceived to be, and the perceived significance of curriculum integration. The final chapter, "Towards Lifelong Education," discusses the similarity between the goals of the two concepts, curriculum integration as a practical outlet for the principles of lifelong education, and the transfer of lifelong education principles from, or through, the curriculum to the community.

If any weakness is to be noted in the discussion of curriculum integration with lifelong education, it is that the bulk of the text deals with the former, and, as indicated, the actual attempted integration of the two concepts addressed is restricted to the first and last chapters. Some additional cross-reference in the central chapters would, I believe, have provided a more fully integrated approach to the topic. Given this perception, however, Ingram has had some success in dealing with the somewhat philosophical and abstract nature of lifelong education and the more practical and everyday issue of curriculum integration to produce an eminently useful commentary on these somewhat unrelated concepts.

The significant emphasis in the approach to the topic is towards the individual rather than the system. Ingram calls for rationality and order to what he believes has, to date, been a piecemeal approach. His approach in the central

chapters is to take curriculum integration beyond the confines of the traditional classroom educational setting to the more broadly based consideration of education through life, in terms of the individual, and while some emphasis is devoted to organizational considerations, the underlying concern is for the individual's participation and potential gains rather than for organizational expediency.

In chapter 6, some consideration is given to the problems associated with, and prospects for, achieving the desired integration. These are viewed from the local as well as the political level. Factors affecting the potential influence of curriculum integration on lifelong education are presented in the final chapter. It is at this point that the major threads of the argument are drawn together.

Ingram states: "the ultimate purpose of integration relates not to the work of schools but to the lives of individuals. If its influence was contained within the walls of schools it would be of little moment." This comment epitomizes the stance adopted by Ingram which includes the notion that curriculum integration makes a significant contribution not only to educational progress, but also to personality and community development.

The text is both an informative and eminently readable treatise on the topic, and is strongly recommended for both specialist and/or tertiary reading in the area.

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HELPING THE RETARDED CHILD IN THE ELEMENTARY SCHOOL YEARS. *By J. B. Fotheringham and J. Morris.* Toronto: Guidance Center, University of Toronto, 1979, 148 pp. (ISBN 0-7713-0079-4)

In an era of increased social awareness of the needs of the mentally handicapped, and a revitalized educational thrust in the direction of integration and normalization, both public and professional education concerning mental retardation has taken on new importance. Fotheringham and Morris have provided a worthwhile vehicle to help facilitate this process. The book is not an expansive review of recent psychological theory nor is it an introduction to new conceptual frameworks. In line with its purpose, the language is neither jargonistic nor stilted; it is an attempt to educate rather than extend research frontiers. In the preface, the underlying assumptions of the text are defined. The assumptions incorporate numerous widely accepted views of the retarded child and, in themselves, are a starting point to frame a perspective of mental retardation.

It is interesting to note that in one assumption the retarded child is described as having "a disorder in his brain's problem solving skills." Later, in the same chapter, the writers comment that "Generally speaking, the main defect in the retarded person's brain is in the central interpretive mechanisms" (p. 3). Although the writers later consider genetic and environmental factors, references early in the text to the retarded individual's "poorly developed brain" might lead the reader to assume a defect model of retardation having as its salient feature structural disorder. As is clarified later in the text, genetic and social factors (independent of physiological defect) account for numerous instances of educable mental retardation.

In describing the causes of mental retardation, the writers relate that 80 percent of retardation is associated with poverty. Since malnutrition is commonly associated with poverty, it might have been worthwhile to accentuate the link given the large body of current research concerning protein-caloric undernutrition and mental retardation. As the content is directed toward parents as well as professionals in areas related to retardation, a description of the results of exemplary programs such as that being carried out at the Montreal Diet Dispensary might have been a timely inclusion.

Chapter II on Developmental Stages presents, in essence, a review of Piagetian theory as it relates to the mentally retarded child. The content is not novel but is well presented and facilitates a basic understanding of Piaget's description of ontogenetic development. Similarly, Chapters III and IV provide an introduction to two-phase assessment—formal and informal. Sound pragmatic advice is offered to the elementary teacher who attempts to differentiate between situational and chronic-organic influences on the child's level of functioning. A basic information processing model serves to point out the intricacy of cognition and the numerous potential problematic areas for the retarded elementary school learner.

In discussing the stresses associated with an elementary school retarded child, the vital link between home and school is emphasized. Although the writers describe our times as the "era of worship of education and veneration of the professional person," it might be said with some justification that such a view of the professional is declining rather than gaining momentum as parents become more highly educated and society in general becomes increasingly more informed concerning mental retardation. Increased accountability on the part of teachers and a more open questioning of school programs will make it even more important to perceive the home and school as "necessary partners."

One of the most informative aspects of the book is its consideration of school arrangements for the mentally retarded child. Rather than advocating an immediate wholesale integration of all retarded children into the regular classroom, the writers have carefully considered factors such as degree of handicap, chronological age, and social maturity. Perceived limitations upon the academic integration of moderate or TMR children seem realistic and warranted, aligning with the Piagetian developmental model presented earlier. Functional requisites to integration related to teacher awareness and school support are clearly defined in the discussion of feasibility. As noted, the question is not one of whether segregation is unfair and integration fair but rather of "what is best for any particular child" (p. 66).

Helping the Retarded Child in the Elementary School Years provides a meaningful introduction to basic concepts in mental retardation. It helps to dispel prevalent myths concerning the retarded child and prompts a questioning attitude toward self-acclaimed research such as that of Doman and Delacato.

The general tenor of the book is positive, looking toward a future in which the retarded individual will become increasingly more independent, a participating member of society. Certainly social workers, teachers anticipating having retarded children in their classrooms, school principals, parents, and others with a keen interest in the welfare of retarded children would benefit from reading this book.

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NEW PUBLICATION

Readers of the AJER will be pleased to learn of the publication of a monograph stemming from the first Faculty of Education Lecture Series Award:

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